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THE PERCEPTUAL LOCUTION:
A PHILOSOPHICAL STUDY

by

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being a dissertation submitted to the University of St. Andrews in
application for the degree of Bachelor of Philosophy of that
University.



"The Perceptual Locution: A Philosophical Study"

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B.Phil., the University of Saint Andrews, 1975

"The Perceptual Locution" is an examination of a number of interrelated issues in the philosophy of perception.

In the past few years it has been argued that a satisfactory analysis of a wide range of 'mental' verbs requires the inclusion of a causal criterion. The first section of the dissertation concentrates on four important areas in which causal accounts have recently been proposed: memory (C.B. Martin and Max Deutscher), inference (Max Deutscher, D.M. Armstrong), knowledge (A.I. Goldman), and finally perception (H.P. Grice and Alan R. White). Counter-examples are presented to each of these accounts, and the position in general is one critical of the causal approach, but is based on the consideration of a number of particular difficulties rather than a general argument. The further consideration of perception constitutes the bulk of the dissertation.

'Experiential' accounts of seeing and seeming, formulated in terms of sense-data, ideas, impressions, images, or the like, have long been of importance in the philosophy of perception. Some fairly recent contributions, traditional in their sympathies, are examined in the second section. Critiques are given of particular contributions by H.H. Price, H.P. Grice, G.E.M. Anscombe, and Roderick Chisholm.

To give an adequate account of the relationship between straightforward perceptual verbs (seeing, touching, tasting, hearing, smelling) and their associated 'appear' words (looks, feels, tastes, sounds, smells) is one of the crucial tasks in

the philosophy of perception. Tied to such an attempt are the related concerns of the analysis of sensible properties (such as colour) and distinguishing between the senses. In a third section an analysis of a number of types of 'appear' words solely in terms of their associated perceptual verbs is presented and defended. An account of colours in opposition to those of J.J.C. Smart, D.M. Armstrong, and Keith Campbell is given, and a solution is offered for H.P. Grice's puzzle concerning how we distinguish the senses.

Many non-philosophers are tempted to ask whether it is not possible that others, though confronted with the same object or event as themselves and behaving as they do, might not have qualitatively different 'sensations' or 'experiences' than they do. A final section, critical of the work of Daniel M. Taylor and relying in part on that of B.A. Farrell, attempts to lay such qualms to rest as confusions of grammatical form.

Introduction:

I was admitted to the University of St. Andrews, St. Salvator's College, Faculty of Arts, in October, 1971 in accordance with St. Andrews Ordinance No. 12, as a Research Student. I was admitted to candidacy for the degree of Bachelor of Philosophy with effect from 1 October 1971, in accordance with St. Andrews Ordinance No. 50. In pursuit of my studies for this degree I have been a matriculated student of the University of St. Andrews in the academic year 1971 - 1972, and have spent the three terms of 1971 - 1972 resident in St. Andrews as a full-time student.

I hereby certify that the material presented in this dissertation is wholly my own, where not otherwise acknowledged, and that none of this material has been presented in any previous application for a Degree.

Patrick Grim

Patrick Grim

I hereby certify that Patrick Grim was admitted as a full-time Research Student for the Degree of Bachelor of Philosophy, with effect from 1 October 1971, that he has been a matriculated student of the University of St. Andrews in the academic year 1971-1972, that he has pursued the study of his approved topic for the requisite number of terms, and that the conditions of Ordinances 50 (St. Andrews) and 350 (University Courts, General No. 12) have been fulfilled.

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TABLE OF CONTENTS

THE PERCEPTUAL LOCUTION: PREFACE	1
SECTION I: THE CAUSAL ACCOUNT	2
CHAPTER 1: MEMORY	3
CHAPTER 2: INFERENCE	11
CHAPTER 3: KNOWLEDGE	24
CHAPTER 4: PERCEPTION	34
SECTION II: PERCEPTION AND EXPERIENCE	41
CHAPTER 5: THE EXPLANATORY 'LOOKS'	42
CHAPTER 6: IMPLICATION AND ALTERABILITY	54
CHAPTER 7: THE PRIMACY OF EXPERIENCE	67
SECTION III: SEEING AND SEEMING	78
CHAPTER 8: A PERCEPTUAL PROPOSAL	79
CHAPTER 9: COLOURS	95
CHAPTER 10: DISTINGUISHING THE SENSES	115
SECTION IV: SENSATIONS	124
CHAPTER 11: THE MYSTERIOUS CASE OF THE PRIVATE PIGMENTS	125
CHAPTER 12: THE MYSTERIOUS CASE OF THE RAW FEELS..	137

A bibliography of sources cited is appended.

THE PERCEPTUAL LOCUTION: PREFACE

A first section of the thesis is dedicated to an examination of a number of causal accounts recently proposed with regard to various aspects of the philosophy of mind. The last of these is perception, the further consideration of which constitutes the bulk of the study. A second section considers the 'experiential' analysis of perception. The heart of my work is perhaps the third section, which concentrates on a proposed analysis of 'seeming', colours, and the distinction of the senses. A final section is dedicated to the philosophical perplexities of 'sensations'.

In the past few years it has been argued that a satisfactory analysis of a wide range of 'mental' verbs requires the inclusion of a causal criterion. This first section concentrates on four important areas in which causal accounts have recently been proposed: memory, inference, knowledge, and perception.

My position in general is one critical of the causal approach, but is based on the consideration of a number of particular difficulties rather than on the conviction of some universal argument.

SECTION I

CHAPTER 1

MEMORY

I. Introduction

A. C. B. Martin and Max Deutscher's "Remembering" is one of the most scrupulous articles to date on the subject of memory and remembering. In what follows, I hope to show 1/ that under one interpretation the criteria they present for 'remembering' are too strong, disallowing an obvious case of memory, 2/ that re-interpretation or amendment of the troublesome criterion 3c results in the criteria being too weak, and 3/ that similar examples would show Martin and Deutscher's criteria, even under the original interpretation, to be too weak as well as too strong.

B. Martin and Deutscher present the following criteria as "separately necessary and jointly sufficient" if an event is to be an instance of someone remembering something:

1. Within certain limits of accuracy he represents that past thing.

2. If the thing was 'public', then he observed what he now represents. If the thing was 'private', then it was his.

3. His past experience of the thing was operative in producing a state or states in him finally operative in producing his representation.

- a. To remember an event, a person must not only represent and have experienced it, but also his experience of it must have been operative in producing a state or successive states in him finally operative in producing his representation.

- b. In those cases where prompting is operative for the

representation, his past experience of the thing represented is operative in producing the state (or successive set of states) in him which is finally operative in producing the representation, in the circumstances in which he is prompted.

c. The state or set of states produced by the past experience must constitute a structural analogue of the thing remembered, to the extent to which he can accurately represent the thing.

To this list of criteria must be added notes concerning Martin and Deutscher's use of 'operative in producing' and 'structural analogue'.

In the first part of their article, Martin and Deutscher tend to substitute for 'operative in producing' the simpler but no more clear "...caused (in the way we shall explain) ...". Their later explanation is a sketchy one: "In order to speak of a causal condition which may be necessary or sufficient but need be neither, we introduce the term 'operative'. A condition may be operative in producing another, even though the result would have been obtained at the same time by another method, had the operative condition not been present." I take as a model for understanding their 'operative' an event Z which may be caused by either X or Y; that or those which did cause Z in circumstance W are 'operative in producing' Z in those circumstances.

We are given the following hints as to 'structural analogue': "...examples such as the structural analogy between music and the groove in a gramophone record ..." and "A 'perfect' structural analogue would have a system of differences which mirrored, one to one, the differences in the original. For our purposes, we may avoid the ambiguity of the first indication by constructing examples such that only '"perfect" structural analogies', as defined above, appear.

II. An Exemplary Approach

"We can offer no argument for the sufficiency of our list of criteria other than the failure, after examination of cases, to find the need for a longer list."

I would like to argue, on the basis of examples, that Martin and Deutscher's criteria, and thus their account, are inadequate as an analysis of memory and remembering. My examples may tend to be complex for the simple reason that Martin and Deutscher's list of criteria, with which the examples are to deal, is a long and involved one. 'Could or is it likely to happen?' is simply not the question. 'Would we call it remembering?' is.

A. As it stands, Martin and Deutscher's criterion 3c seems open to alternate interpretations. It may be taken, on a strict interpretation, to require that all states produced by the past experience constitute a structural analogue of the thing remembered. Two more liberal interpretations, however, are also possible. The first is that it requires merely that some such states constitute a structural analogue of the thing remembered. A more natural liberal interpretation, I think, is that the phrase 'state or set of states' in criterion 3c is meant to refer back to a similar phrase in criteria 3a and 3b. Under the third interpretation, 3c is meant to read: 'the state or set of states produced by the past experience, and finally operative in producing the representation, must constitute a structural analogue of the thing remembered'.

If strictly interpreted as requiring that all states produced by the past experience constitute a structural analogue of the thing remembered, clause 3 is excessively tight; it disallows the following case of memory.

Mr. A was shot during the war. One result of that experience was the later development of a constant nervous twitch in Mr. A's left ear. Now Mr. A is asked by his son to tell about the war. Mr. A recounts the incident of being shot exactly as it happened.

We have no reason to believe that Mr. A is not remembering both that he was shot and the incident of being shot. Were criterion 3c strictly interpreted, however, the case of Mr. A would not be allowed as one of memory. Mr. A's nervous twitch, a state produced by the experience of the event he is recounting, offers no conceivable structural analogue to getting shot.

On a strict interpretation of 3c, then, Martin and Deutscher's criteria do not present necessary conditions for remembering. It has been noted that a similar argument against the more liberal readings suggested for 3c would require a case in which no structural analogues are present. In what follows I hope rather to show that Martin and Deutscher's criteria, with a more liberal 3c, are insufficient for 'remembering'.

B. In response to the case of Mr. A, it could be maintained either 1/ that the strict interpretation is the correct one and amendment is required, or 2/ that one of the more liberal interpretations is intended. We might thus consider the following as an amendment, or as a more liberal interpretation, of 3c. It is in fact the second interpretation offered above.

3c'. "Some state or states produced by the past experience must constitute a structural analogue to the thing represented."

Whether as amendment or interpretation, the introduction of 3c' is futile. Such a formulation would force us to classify as 'remembering' a case in which 1/ some states s produced by the

original experience are operative for the final representation and 2/ some other states s' produced by the original experience form a structural analogue of the thing remembered. We would thus be forced to include the following as a case of remembering:

Mr. B got on a train and his left ear twitched. That experience served, ten years later, to produce a continual twitching in Mr. B's left ear, of which Mr. B is no longer cognizant. As his ear twitched, moreover, it frightened away a deadly B-fly which was preparing to sting Mr. B and whose sting causes instant death. A short while after the original twitching, Mr. B suffers complete amnesia and can tell us nothing of his past.

Mr. B is a member of the imaginary stories club. His specialty is twitches, and his goal is to tell a 'twitch-story' about every part of the human anatomy. One night he happens to entertain the club's members with a story about a man whose left ear twitched.

It is doubtful that Mr. B has remembered, yet 3c' is fulfilled. His original twitch produces both a structural analogue (his ear twitching now) and, by saving his life, is operative for his present representation.

C. It thus appears that the only way to tighten Martin and Deutscher's list of criteria is to make use of our third interpretation above, whether viewed simply as an alternative interpretation or as an amendment of one of the others. We might thus demand that those 'state or states' produced in the individual by the past experience and finally operative in producing his representation be precisely those states which form a structural analogue to the thing remembered. This seems the tightest interpretation or amendment short of the original, and excessively tight, statement.

But even this will not do:

Mr. C got on a train and his right hand twitched. That experience served, ten years later, to produce a continual twitching in Mr. C's right hand, of which Mr. C is no longer cognizant. A short while after the original twitching, Mr. C suffers complete amnesia and can tell us nothing of his past.

Mr. D is a political assassin instructed to shoot and kill Mr. C when his hand stops twitching. Mr. C, like Mr. B, is a member of the imaginary stories club. In competition with Mr. B, his specialty is twitches, and his last few years have been dedicated to entertaining the members of the club with a 'twitch story' about every part of the human anatomy. He has worked from the toes up. Mr. C is now asked to tell a story, and speaks of a man whose hand twitched. Of course Mr. C's hand is still twitching, and so Mr. D cannot shoot him.

It thus appears that even our last and tightest criterion is fulfilled, and yet we would still not want to credit Mr. C with remembering. His original experience of twitching produces a structural analogue (his hand twitching now) which is a state in him and which, unbeknownst to him, lets him keep living and is thus directly operative for his present representation.

Our third interpretation, like the original 3c, may be taken as demanding either that all or some of the 'state or states' in question constitute structural analogues of the thing remembered. The case of Mr. C, however, presents an obstacle to both readings. The force of our example remains whether we take Mr. C's current hand-twitching as the sole product of his past experience (thereby satisfying the strict 'all') or as one of several (sufficient for the more liberal 'some').

D. An examination of the case of Mr. C, however, serves to show

much more than simply that our latest variation of the cause clause (whether as amendment or interpretation) is inadequate. There need be only one state produced by the original experience of the twitching hand: the later twitching hand, which is both a perfect structural analogue of the event represented and directly operative in saving Mr. C's life and thus in producing his representation. Thus Martin and Deutscher's conditions are fulfilled, even on the strictest interpretation, and yet it is certainly debatable whether Mr. C's is a case of remembering.

Our examples have finally drawn us full circle. Martin and Deutscher's cause clause 3c, and thus their entire account, is at least too loose. Whichever of the outlined interpretations we choose, we seem forced to sanctify Mr. C's case of non-memory. If 3c is strictly interpreted, moreover, the account is at once both too loose and too tight; we would be forced both to sanction Mr. C's case of non-memory and to forbid Mr. A's case of memory. I can at present see no way in which a causal account of memory could deal with the obstacles presented.

E. It should finally be noted that the exemplary use of death in preventing the representations of Messrs. B and C is largely incidental. As the examples stand it might be thought that we can avoid them simply by stipulating that the 'state or states' in question not be operative in producing every subsequent state of the individual in question. But Mr. D need not be an assassin instructed to kill Mr. C should his hand stop twitching and the sting of the B-fly need not be fatal. Mr. D's function in the example, and thus the force of the example as a whole, are preserved if we instruct him not to kill Mr. C but simply to destroy Mr. C's voice box or ability to speak. The B-fly's exemplary function

is similarly preserved if its sting results not in death but simply paralysis of the vocal chords or an inability to tell twitch-stories. It would also be a mistake, of course, to demand that the 'state or states' of the individual in question be operative in producing only his representation. Such a move would force us to reject any case of memory in which the 'structural analogue' was operative in producing not only a legitimate representation but also regret, resolution, or the great American novel.

The inclusion of causal criteria in accounts of various terms, including 'remembering', has often been argued for on the basis that rival accounts prove insufficient. In following chapters, as above, I hope to show alternative causal accounts to be insufficient as well. The possibility remains that what is lacking in those accounts might, if added to their rivals, vindicate them as well and thus circumvent any need for a causal requirement.

I. Introduction

Max Deutscher's "A Causal Account of Inferring" and D. M. Armstrong's "Knowledge and Inference" in A Materialist Theory of the Mind constitute the two most systematic arguments to date for a causal analysis of inference. I hope to show that neither Armstrong's nor Deutscher's accounts, nor a number of conceivable revisions of their criteria, are adequate. My work thus consists in showing that a number of 'purified' statements of the causal criterion remain open to counter-examples, and rests on every 'strengthening' of a causal criterion being too weak in allowing a case of non-inference as well.

A third and final section examines briefly the possibility of an 'achievement' status for 'infer'.

II. Armstrong's cause clause

Armstrong's "Knowledge and Inference" presents no explicit list of criteria for inference. The following, however, may be abstracted as the significant features of his account:

A person infers q from p at time t_x if and only if:

(1) He comes to believe (or at least entertain) q at t_x .

(2) He already believed (or at least entertained) p at t_x .

(3a) His believing p causes him to believe q .

(3b) His belief p is causally relevant right up to the time that he acquires belief q . (Unless he had believed p up to the time of acquiring belief q he would not have come to believe q .)

(3c) When we speak of inferring we must take the premiss of

the inference to be all those beliefs which are causally relevant right up to the moment of the arriving at the conclusion .

(4) An inference is 'direct' if it is not arrived at via some set of propositions which are inferred from p and are then used as premisses to infer q. An inference is 'indirect' if it is arrived at via some set of propositions which are inferred from p and which are then used as premisses to infer q.

Criteria 1 and 2 are assumed. Armstrong's "or at least entertain" lets him include as cases of inference what Deutscher categorizes as 'showing to be derivable'. 3a, 3b, and 3c are nearly direct quotations from Armstrong's essay. His account concludes with condition 4 and the statement, "With these qualifications, it seems that our causal account of inferring can stand."

A. As they stand, Armstrong's criteria outlaw the following case of legitimate inference.

Sherlock A. Holmes is a German Jew. He holds a belief o, that the Nazi state is a good one. Were he to stop believing o, he would be instantly seized and executed.

Sherlock A. now enters a room and notices the smell of perfume. He tells Watson that a woman has been in the room shortly before.

I see no objection to saying that Holmes inferred that a woman had been in the room shortly before from the fact that there was a smell of perfume. If Armstrong's account were accepted, however, we would be forced on the ground of 3c to say that one of Sherlock's premisses was his belief in the Nazi state (o). The belief o kept him alive and thus caused him to conclude as he did; had he been dead he could never have come to believe that a woman had been in the room.

We would likewise be forced to say that anything that Sherlock A. comes to believe has as one of its premisses the belief o.

B. It thus appears that the troublesome 3c must be changed. Most notably, some distinction between 'causes' must be made if a causal criterion is to be successful in eliminating obvious counter-examples.

I can see only two basic ways in which the 'cause clause' might be purified. The first is an insistence on the medium of the causal connection. The second is a demand with respect to the type of cause involved.

Let us thus insist that the medium of causality be within the body (or even brain) of the person 'inferring'. We may further demand that the medium be a normal or natural one; no funny machines need apply. Such a 'medium' condition alone, however, will not solve the difficulties:

As a child, Sherlock B. Holmes was in an automobile accident, bumped his head, and has been unable to make 'judgements' or 'intellectual moves' since. He believes what he is told, but cannot 'move' from one belief to another. If told that there are two groups of two oranges in the box, he will believe it. If told that there are four oranges in the box, he will believe it. He cannot, however, 'move' from one belief to the other, and sees no connection between them.

Sherlock B. Holmes is gullible enough to believe anything that he is told and most things that he imagines. He happens to believe p. Independent tests have indicated that Sherlock's brain is so diseased that, should he ever stop believing p, he will undergo intense mental strain and suffer an immediate and fatal cerebral hemorrhage.

Sherlock B. is now told (or imagines) that the moon is made of green cheese, and comes to believe it.

Has he inferred? Very possibly not; and yet our last criteria

of a normal or natural causal connection, no matter how far 'in' the body, brain, or neural structure we demanded it, would force us to call Holmes' coming to believe that the moon is made of green cheese (or any other belief, for that matter) an 'inference' from p.

Such a move would also outlaw the following case of inference:

Sherlock B'. Holmes notices a smell of perfume in the air, and sits down to ponder what that might indicate. Watson is now dead, but some fantastic machine has been set up to imitate him appropriately in any context. The machine 'says', "Does it have something to do with what was in the room?" "I've got it", Holmes cries, "There's been a woman here!"

Surely Holmes' is a case of inference that any prejudice against fantastic machines would deny us.

C. There remains to be pursued a second distinction of causes, that of type. Here a number of possibilities present themselves; we may demand active rather than simply passive causes, and direct rather than simply indirect causes. We may further demand that the causal connection involved be a 'unidirectional' one; that belief p have one, and only one, effect; a belief q. I can think of no stronger demand as to type than that the cause involved be 1/ unidirectional, 2/ active, and 3/ direct. Even with the further demands that the causal 'medium' be 4/ natural or normal and 5/ within the brain, however, the account proves inadequate:

Sherlock C. Holmes, like a number of Holmeses, has suffered a childhood accident that has rendered him incapable of making intellectual 'moves' from one belief to another. Sherlock has been told that his mother is dead, and believes it. This belief has so upset his mental balance that he has been hospitalized.

Sherlock now does a strange thing. He still believes whatever

he is told, but whenever he is told anything he believes it and believes something else as well. The psychologist in charge of Sherlock says that Sherlock is unconsciously playing a game that might be called 'belief-and-counter-belief'. For any new belief told him, he must produce any other in order to maintain his 'security'. But Sherlock can see no connection between the beliefs.

Watson now tells Sherlock he is looking well, Sherlock believes it, and then says, "The grass is blue". Sherlock believes the grass is blue, and invites Watson to "tell (him) another".

Whatever Sherlock is doing, we need not say that he is 'inferring'. Nonetheless, his belief that he is looking well might be a unidirectional, active, and direct cause of his belief that the grass is blue.

It thus appears that even the strongest possible statement of a causal criterion allows for a case of non-inference. Whatever raises the difficulties encountered in our examples, I can see no way in which a cause clause can cure them. I thus turn to Deutscher's account to see if it can stand similar strains.

III. Deutscher's cause clause

Deutscher presents the following as criteria for inference:

Person A inferred that-q at t_x from p's being the case, or from the 'supposed' fact that-p, if and only if:

(1) He came to believe that-q at t_x .

(2) He already believed that-p at t_x .

(3)a His state of belief that-p was an operative condition of his coming to believe that-q at t_x .

(3)b If some observation X is an intervening factor between the belief that-p, and the belief that-q, then the belief that-p must be operative in producing the belief that-q, in the circumstance

that X obtains, and not merely operative for producing the circumstance X.

(4) At t_x he believes that, in the light of what he already believes, the fact (or supposed fact) that-p makes it at least not completely unreasonable to believe that-q. That belief is a condition of his coming to believe that-q.

The term 'operative condition' has the same use as in Martin and Deutscher's "Remembering". The 'in'-'for' dichotomy of criterion 3b is there indicated as follows:

"If A is operative for B and B is operative for C, then we shall say that A is operative for the circumstance B which is operative for C. If A is operative for B and B is operative for C, however, and as well as this A is operative for a factor B' other than B which acts with B to bring about C, then we shall say that A is operative for C in (as well as for) the circumstance B, which is operative for C. Clearly, A may be both operative for the circumstances B which help to bring about C, and operative in those circumstances."

D. Our main concern here lies with the causal criteria 3a and 3b. It should be noted, however, that criterion 4 is a bit suspicious as well. Deutscher constantly reminds us that an inference may be sound or unsound, and thus attempts to define inference non-evaluatively. Criterion 4, however, retains at least a modified evaluational tone; a tone accentuated by the criterion which didn't join the list:

"Once we have conceded this, we can recognize also that where a person's move is well based and sensible ... we are prepared to waive the condition that one who infers should have an opinion about the rationality of his move."

By constructing examples such that criterion 4 is fulfilled (A believes that the move from p to q is a reasonable one and that belief p is an operative condition for his coming to believe q), we may throw a concentrated light on the 'cause clause' 3.

E. Deutscher's analysis, as it stands, fails on the side of laxity; it illicitly sanctions the following case of non-inference.

Sherlock E. Holmes suffers from a childhood accident that has left him incapable of making 'moves' from one belief to another. He is also gullible enough to believe whatever Watson tells him. Sherlock has been told, and believes, both p and j (it is reasonable to believe q on the basis of p). He does not, however, believe q.

Sherlock's arch-enemy Professor Moriarty tunes Holmes in on a belief-o-meter which signals Moriarty that Holmes believes p and j. Moriarty decides to shoot and kill Holmes when he stops believing p or j.

Watson now tells Sherlock that-q, and Sherlock believes it.

We certainly need not say that Holmes has inferred q from p (or even from p and j) in this case. Deutscher's criteria, however, are fulfilled. Even if Watson's remark were considered an 'observation X', p and j would serve as operative conditions both in and for 'observation X' by keeping Holmes alive.

F. It thus appears once again that the 'cause clause', if it is to be effective, must be 'purified' so as to deal with the type of case presented. Once again we might attempt causal 'purification' of both medium and type. We may thus insist that the medium of causality be a normal or natural one within the medium of the brain. Such a requirement proves insufficient:

Sherlock F. Holmes, like the rest of the family, has suffered a childhood accident and can make no intellectual 'moves' from one

belief to another. He happens to believe p and j, but not q.

Independent tests have indicated that, should Sherlock F. stop believing either p or j (or both), his brain will suffer such strain that he will have an immediate and fatal cerebral hemorrhage.

Sherlock now happens to imagine q, and comes to believe it. He can, of course, see no connection between q and either p or j.

Our criteria are still fulfilled. Beliefs p and j keep Holmes alive, and are thus operative conditions for anything he comes to believe. It is nonetheless quite doubtful that Holmes has inferred. A 'normal medium' criterion would as well outlaw any fantastic machine prompting, including the case of Sherlock B'. Holmes.

G. We are once again forced to turn to 'type' distinctions in the attempt to 'purify' the cause clause. But even to demand that the causal connection involved be 1/ unidirectional, 2/ active, 3/ direct; and that the medium be 4/ normal or natural and 5/ within the brain; proves inadequate. I can conceive of no stronger causal demand than that shown insufficient by the following case.

As the result of a childhood accident, Sherlock G. Holmes can make no intellectual 'moves' from one belief to another. Sherlock G. now suffers another accident, gets a nasty crack on the head, and is hospitalized. He is still unable to pass the 'oranges in boxes' test, and still believes anything he is told.

Sherlock develops, as a result of his second accident, what the psychologist in charge terms 'belief-and-justifiable-belief-counter-belief-itis'. He shows case histories that indicate that a blow on the head such as Sherlock received always produces these symptoms; the patient believes anything that he is told, and if he is told any proposition and any proposition of justifiable belief he feels

compelled to believe the next thing that he imagines.

Watson now comes to visit Holmes, brings him flowers, and says, "You look well, Sherlock ... and it's reasonable to believe on that basis that you'll be up and around in no time." Holmes yells, "There are yellow geraniums in your ears!", believes it, and adds "Score! Tell me another". This type of thing goes on indefinitely. Eventually Watson says, "I hear your mother died. It's reasonable to believe on that basis that you're an orphan." Holmes yells, "I'm an orphan", believes it, and adds "Score! Tell me another."

We are no more compelled to say that Holmes inferred that he was an orphan from the fact that his mother was dead than that he inferred that Watson had yellow geraniums in his ears from the fact that Holmes was looking well. It thus appears that even our last and strongest causal criteria are inadequate.

H. It should finally be noted that the exemplary use of execution or assassination in the cases of Sherlock A. and Sherlock E., and of cerebral hemorrhage in the cases of Sherlock B. and Sherlock F., is largely incidental. As the examples stand it might be thought that we can avoid them simply by stipulating that the belief that-p (or believing p) not be an operative condition of (or cause) every subsequent state or belief of the individual in question. But Moriarty need not decide to kill Holmes when he stops believing p or j, and the Nazis need not make it a policy to execute those who do not believe o. Their function in the examples, and thus the force of the examples as a whole, are preserved if they decide not to kill Sherlock A. and Sherlock E. but simply to destroy their frontal lobe, their ability to acquire beliefs, or their ability to acquire beliefs concerning women and the subject of that-q.

Similarly, Sherlock B. and Sherlock F. need not suffer complete cerebral hemorrhages upon abandoning beliefs p , and p or j , respectively. The function of their illnesses in the examples, and thus the force of the examples as a whole, are preserved if Sherlock B. and Sherlock F. are in danger not of losing their lives but of losing consciousness, their ability to acquire beliefs, or their ability to acquire beliefs concerning the subject of q .

It would also be a mistake, of course, to demand that beliefs p or p and j of the individual in question be operative in producing only his belief that- q . Such a move would force us to reject any case of inference in which the prior belief was operative in producing not only the subsequent belief that- q but also some other conclusion, regret, resolution, or the great American murder mystery.

A case or at least a type of case has been produced which involves (as far as I can see) the strongest possible causal relation between beliefs, and which satisfies Deutscher's and Armstrong's other criteria, but which is not a case of inference. This seems to indicate not only that Deutscher's and Armstrong's causal criteria cannot adequately deal with the problems they were introduced to solve, but that no causal analysis could do so.

IV. Is 'Infer' an Achievement Word?

A. Gilbert Ryle's The Concept of Mind introduces a type of verb, alternately termed 'achievement words', 'success words', or 'got it words', in the following terms:

"Verbs like 'spell', 'catch', 'solve', 'find', 'win', 'cure', 'score', 'deceive', 'persuade', 'arrive', and countless others signify not merely that some performance has been gone through, but also that something has been brought off by the agent going through it. They are verbs of success."

He specifically refers to inference as a member of such a class:

"'Inferring' is not used to denote either a slowish or quickish process ... 'Conclude', 'deduce', and 'prove', like 'checkmate', 'score', 'invent', and 'arrive' are, in their primary uses, what I have called 'got it' verbs ..."

B. Both Max Deutscher's "A Causal Account of Inferring" and A. R. White's "Inference" have seemingly challenged the achievement status of 'infer'. Deutscher speaks of 'incorrect inferences' and even 'insane inferences'. White's text runs as follows:

"Inferences are not like achievements or arrivals because, unlike discoveries (and also unlike deductions) they are not something we can try to, promise or resolve to make or can manage to obtain. We can not use means and methods or rely on luck to infer something. We can ask someone what he would infer from the evidence but not how he would infer.

"Unlike achievements, inferences can be drawn cautiously, carefully, hastily or recklessly, as well as naturally or automatically. Unlike achievements, they can be made justifiably, illegitimately, on good or bad grounds."

White's own analysis of inference, though not clearly drawn, is that "to infer ... is to take up, to accept, or to change to a position." Unfortunately, White's account is as subject to a verbal barrage of legitimate and illegitimate modifications as are his competitors';

One can take up a position (on a playing field) approximately, quickly, slowly, lacadaisically, and can promise, try, or manage to take up that position. One cannot approximately infer, to infer quickly seems odd, and White himself denies that one can try to, promise to, resolve to, or manage to infer.

One can accept a (professional) position temporarily,

conditionally, or by mistake. One can also promise or resolve to accept a position. One can infer neither temporarily nor by mistake. Again on White's own statement, one cannot promise or resolve to infer.

One can change to a position (as an opinion) for the sake of argument, through conformity, empathetically, or in order to appease an opponent. It can take a long time to change from a Conservative to a Liberal position. One can pretend to infer, but cannot infer, for the sake of argument. One doesn't infer in order to be like others.

C. Is 'infer' an achievement word? Ryle seems to outline two criteria for the class: the inapplicability of (1) temporal and (2) evaluative modifiers ('positive' evaluative modifiers are redundant, 'negative' evaluative modifiers need not apply). White seems anxious to add another; the inapplicability of 'volitional' constructions (try to, promise to, manage to, resolve to).

Two paradigm cases may here be introduced; 'win' and 'achieve'. Both of these satisfy Ryle's two criteria; one doesn't either win or achieve (a goal) quickly or slowly, and to 'win unsuccessfully' is as confused as to 'unsuccessfully achieve'. Yet one can resolve to, try to, and in certain cases even promise to both win and achieve.

To infer satisfies the first of Ryle's criteria; one doesn't infer either slowly or quickly, and 'how long did you infer that?' is as odd as 'how long did you arrive there?' It does, however, appear that 'infer' fails the second test; both White and Deutscher point out that one can infer correctly or incorrectly, justifiably, illegitimately, and on good or bad grounds. Governor Connolly of Texas has recently derided the press for "irresponsible inferences".

It remains possible to argue that the verb 'to infer', like

Ryle's 'to observe', is used in two ways, one of which satisfies achievement status. It also remains possible to argue that a 'failure' with regard to inference is at least in some sense a 'success'.

We might thus insist that 'to infer', in at least one usage, is short for 'to correctly infer' as 'to translate' is short for 'to correctly translate' (although one can give an incorrect translation) and as 'to spell' is short for 'to spell correctly' (although one can both misspell and spell a word incorrectly). Certainly Watson chronicles Holmesian chains of reasoning by simply saying 'Holmes inferred x from y and z', and the temptation to write 'correctly inferred' never occurs to him.

We might also suggest that a combination of letters must bear some resemblance to the original in order to qualify even as a misspelling, that a combination of words must bear some resemblance to the original in order to qualify as a mistranslation, and that a chain of reasoning must bear some resemblance to a legitimate inference in order to qualify as an illegitimate or unjustified inference.

The question remains, however, how one is to decide whether a word has two uses or how one is to establish the requisite bounds of similarity.

D. My own feeling is that the terms 'achievement word', 'got it word', and 'success word' have outlived their usefulness. They were first coined and used by Ryle for an essentially negative task; and they did their job admirably. For our purposes, however, and whether or not inference can be fitted into a neat categorical box, 'win' and 'infer' are as significant for their differences as for their similarities.

SECTION I

CHAPTER 3

KNOWLEDGE

I. Introduction

This chapter deals almost exclusively with A. I. Goldman's "A Causal Theory of Knowing". I hope to show that his account of knowledge is insufficient, and that no causal criterion could overcome the difficulties presented. As in the preceding chapters, my thesis rests on every 'strengthening' of the causal criterion being too weak in that it allows a case of non-knowledge as well.

II. Goldman's cause clause

A. Goldman's "A Causal Theory of Knowing" is an attempt to deal adequately with two counter-examples to a traditional account of knowing, presented by E. L. Gettier, through the addition of a causal criterion.

The traditional account is the following:

S knows that P if and only if: (i) P is true

(ii) S believes that P, and

(iii) S is justified in believing
that P

Gettier's counter-examples, slightly abbreviated, take the following form:

(a) S and J apply for a job. S has strong evidence to believe that: (i) J will get the job and J has ten coins in his pocket.

(Let us say that the president of the company assured S that J would be selected, and S counted the coins in J's pocket.) Proposition (i) entails (ii), that the man who will get the job has ten coins in his pocket. S sees that (i) entails (ii), and comes to believe (ii).

Now, unknown to S, he, and not J, gets the job and S happens

as well to have ten coins in his pocket.

It now appears that all criteria of the traditional account are fulfilled, but that one would not wish to say that S knew (11).

(b) S has evidence for (1) J owns a Ford. He now quite arbitrarily constructs three propositions: (11) (1) or Brown is in Boston, (111) (1) or Brown is in Barcelona, and (1v) (1) or Brown is in Brest-Litovsk.

(11), (111), and (1v) are each entailed by (1). S sees that they are thus entailed, and proceeds to accept (11), (111), and (1v) on the basis of (1).

It so happens that, unknown to S, J does not own a Ford and Brown happens to be in Barcelona. Once again all criteria are fulfilled, but we would not want to say that S knew (11).

B. Goldman's explicit analysis of knowing is as follows:

S knows that p if and only if:

the fact p is causally connected in an 'appropriate' way with S's believing p.

'Appropriate' knowledge-producing causal processes include the following:

(1) Perception

(2) Memory

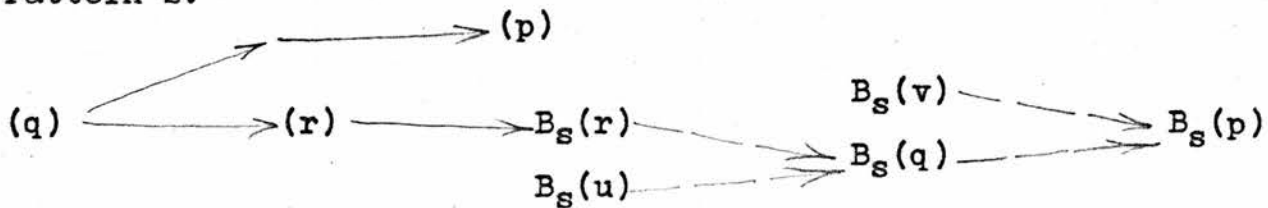
(3) A causal chain, exemplifying either Pattern 1 or 2, which is reconstructed by inferences, each of which is warranted. (background propositions help warrant an inference only if they are true)

(4) Combinations of (1), (2), and (3).

Patterns 1 and 2 are as follow:

Pattern 1: $(p) \longrightarrow (q) \longrightarrow B_S(q) \begin{matrix} \searrow \\ \nearrow \end{matrix} B_S(p)$
 $B_S(r) \longrightarrow \nearrow$

Pattern 2:



B = belief, subscripts = agents, and (x) = the proposition x, throughout. Solid arrows designate causal connections and broken arrows designate inferences. Thus '(p) \longrightarrow (q) \dashrightarrow $B_S(p)$ ' symbolizes that p causes q and that S infers p from q.

To his analysis, Goldman adds, "Notice that I have not closed the list of 'appropriate' causal processes. Leaving the list open is desirable, because there may be some presently controversial causal processes that we may later deem 'appropriate' and, therefore, knowledge-producing."

Goldman's analysis, with his 'leaving open', looks suspiciously like his earlier 'causal' treatment of memory:

"S remembers p at time t only if S's believing p at an earlier time is a cause of his believing p at t ... As in the case of perception, however, I shall not try to describe this process in detail ... Instead, the kind of causal process in question is to be identified simply by example, by 'pointing' to paradigm cases of remembering. Whenever causal processes are of that kind -- whatever that kind is, precisely -- they are cases of remembering."

As it stands, Goldman's analysis of knowing, like that of remembering, is either circular or hopelessly vague. If his suggestion is that our list of criteria for knowing must include 'S knows p only if the relationship has the causal flavour of knowing', we are lost in circularity. If, on the other hand, Goldman is insisting that there is something causal about knowing, but cannot tell us what it is, then his 'analysis' remains much too vague to be of significant

help.

There is, luckily, a way out. Goldman manages to solve the immediate problems presented by Gettier's counter-examples simply by demanding that what makes *p* true be the cause of *S*'s coming to believe that *p*. It thus appears that his 'blank cheque' analysis need not be taken at face value, and that we can take Goldman on his introductory word:

"Thus, one thing that seems to be missing in this example is a causal connection between the fact that makes *p* true (or simply: the fact *p*) and Smith's belief of *p*. The requirement of such a causal connection is what I wish to add to the traditional analysis."

We may thus rephrase Goldman's analysis as follows:

S knows that *P* if and only if: (i) *P* is true,

(ii) *S* believes that *P*,

(iii) *S* is justified in believing
that *P*, and

(iv) There is a causal connection

between the fact that makes *P* true and Smith's belief that *P*.

In what follows I hope to show that Goldman's analysis (even if the 'type of cause' is 'left open') will not do, for the simple reason that no causal criterion could deal adequately with the type of problems presented by Gettier's counter-examples.

C. As it stands, the account is inadequate; the ambiguity of 'causal connection' in (iv) allows us the following case of non-knowledge where *S*'s belief that *P* is causally connected with what makes *P* true by being *P*'s cause, rather than *P*'s effect:

Mr. C believes, justifiably, that Sherlock C. Holmes is dead; he has, let us say, read an obituary for Sherlock C. Holmes that morning. Mr. C now arbitrarily constructs three propositions: (i)

Sherlock C. Holmes is dead or I will be shot tomorrow, (ii) Sherlock C. Holmes is dead or I will be hung tomorrow, and (iii) Sherlock C. Holmes is dead or I will be smothered tomorrow. Mr. C sees that (i), (ii), and (iii) are entailed by Sherlock C. Holmes being dead, which he believes on good grounds, and thus comes to believe (i), (ii), and (iii).

Unknown to Mr. C, the obituary he read contained a misprint; it was not Sherlock C. but Sherlock D. Holmes who had died. Also unknown to Mr. C, a secret society has decided to hang all persons who hold a 'disjunctive belief'. They find that Mr. C holds (ii), and will thus hang him tomorrow.

Does Mr. C know he will be hung? There is no need to think so. Nonetheless, the criteria as they stand are fulfilled.

D. It thus appears that the cause clause must at least be amended to the following:

(iv)' The fact that makes P true must be a cause of S's belief that P.

Goldman's original reasons for the ambiguity of (iv) rest on Pattern 2, where the cause of p and S's belief that p are the same. Thus the change from a 'causal connection' to a 'cause' prohibits Goldman's case of knowledge of a future p:

T intends to go downtown on Monday. On Sunday, T tells S of his intention. Hearing T say he will go downtown, S infers that T really does intend to go downtown. And from this S concludes that T will go downtown on Monday. Now suppose that T fulfills his intention by going downtown on Monday.

The criteria as amended, however, allow as well a case of non-knowledge:

Mr. D believes, on good grounds, that Sherlock D. Holmes owns a Ford; he has always owned a Ford, is constantly extolling the virtues of Fords, and is now driving a Ford. Sherlock D. offers Mr. D a ride in the Ford he is driving.

As they drive along, Mr. D arbitrarily constructs three propositions: (i) Sherlock D. owns a Ford or Mr. E's attempts to kill me have not yet succeeded, (ii) Sherlock D. owns a Ford or Mr. F's attempts to kill me have not yet succeeded, and (iii) Sherlock D. owns a Ford or Mr. G's attempts to kill me have not yet succeeded. Mr. D sees that 'Sherlock D. Holmes owns a Ford', which he is justified in believing, implies (i), (ii), and (iii). He thus comes to believe (i), (ii), and (iii).

It just so happens that, unknown to Mr. D, Sherlock D. Holmes does not own a Ford and Mr. F's attempts to kill Mr. D have not yet succeeded.

What criteria are now unfulfilled? The fact that makes (ii) true -- that Mr. F's attempts to kill Mr. D have not yet succeeded -- is an operative condition for Mr. D staying alive and thus for Mr. D coming to believe anything, including (ii). Nonetheless, we need not say that Mr. D knew (ii).

It should be noted, however, that the exemplary use of death in the case of Mr. D, as in certain examples of the previous chapters, is largely incidental. As the example stands it might be thought that we can avoid it simply by stipulating that the fact that makes (ii) true not be an operative condition for every subsequent state or belief of Mr. D. But Mr. F's function in the example, and thus the force of the example as a whole, are preserved if he attempts not to kill Mr. D but to destroy his frontal lobe, his ability to acquire beliefs, or his ability to acquire beliefs concerning Mr. F.

Here as before, of course, it would also be a mistake to demand that the fact that makes (ii) true be operative in producing only Mr. D's belief in (ii). Such a move would force us to reject any case of knowledge in which the fact in question was operative not only in producing Mr. D's belief in (ii) but also regret, resolution, or Mr. F's divorce.

E. It thus appears that Goldman's cause clause must be further strengthened. The insistence on a 'causal medium', as indicated in the preceding chapter with respect to Deutscher's and Armstrong's 'inference', is here inapplicable. To insist that what makes p true be a bodily state of S, causally connected with S's belief that p, would limit us to a knowledge of bodily states. To insist that what makes p true cause a state in S which in turn causes S's belief that p would likewise be of no avail; the case of Mr. D would still slip through.

We might, however, turn to 'types' of causes. We might thus demand that the fact that makes p true be 1/ an active (rather than simply a passive), 2/ a direct (rather than simply an indirect), and 3/ a unidirectional cause of S's belief that p. Even this, however, fails to overcome the problems involved:

Mr. E believes, on good grounds, that Sherlock E. Holmes owns a Ford. Sherlock E. now offers Mr. E a ride in a Ford.

As they drive along, Mr. E constructs three arbitrary propositions. At time t_1 , he says (i) Sherlock E. owns a Ford or Mr. F has performed an operation on me which forces me to believe whatever I say now. At time t_2 , he says (ii) Sherlock E. owns a Ford or Mr. G has performed an operation on me which forces me to believe whatever I say now. At time t_3 , he says (iii) Sherlock E. owns a Ford or Mr. H has performed an operation on me which forces me to believe whatever I say now. Mr. E comes to believe (i), (ii), and (iii), and sees that each is

51
entailed by Sherlock E's ownership of a Ford.

It just so happens that Sherlock E. does not own a Ford and that Mr. G has performed an operation on Mr. E which forces him to believe whatever he says at exactly time t_2 . Mr. E has no memory of the operation.

Does Mr. E know (ii)? We have very good reasons to think not; he would have believed anything he said at time t_2 , and just happened to say (ii). Nonetheless, even our last and strictest criterion is fulfilled.

F. At this writing I can conceive of only one further strengthening for the causal criterion. Rather than simply adding a causal demand in the manner of Goldman, such a stipulation would involve the consolidation of criteria (ii) and (iv) and the introduction of something like a notion of 'justifiable cause' such that:

What makes P true must cause S to believe that P and must also justify S in believing that P.

At first sight, this seems capable of solving our problems by eliminating the exemplary disjunction, one part of which is true and the other part of which is justifiable. Even if we couple this with an insistence that p be a direct, active, and unidirectional cause of S's belief that p, however, the problems remain:

Mr. F has undergone an operation performed by Mr. H, the nature of which he was and is unaware. Mr. F was, however, conscious throughout the entire operation and observed Mr. H's every move (in a mirror, we may say). Mr. F noticed that Mr. H's surgical moves were made carefully, skillfully, and with confidence. He noticed that Mr. H knew exactly what tools to use when, and heard Mr. H murmur "This reminds me of the Hamilton Sandwich operation", "This reminds me of the Hedda Lettuce operation" and the like at periodic intervals. Mr. F thus concluded that Mr. H is an able, experienced,

and proficient surgeon.

Sometime later, Mr. F is doing his logic homework and constructs, for practice, three arbitrary disjunctive propositions. At time t_1 he says (i) "Mr H is an able, experienced, and proficient surgeon or Mr. G performed an operation on me which forces me to believe anything I say now." At time t_2 he says (ii) "Mr. H is an able, experienced, and proficient surgeon or Mr. H has performed an operation on me which forces me to believe anything I say now." At time t_3 he says (iii) "Mr. H is an able, experienced, and proficient surgeon or Mr. I has performed an operation on me which forces me to believe anything I say now." Mr. F comes to believe each of (i), (ii), and (iii) in turn, and sees that each is implied by Mr. H being an able, experienced, and proficient surgeon, which he has good grounds to believe.

It happens that Mr. H is neither an able, an experienced, nor a proficient surgeon. He has performed only one operation in his life; that on Mr. F. He was, at the time, under the effects of a drug which bolstered his confidence and thus gave him the appearance of proficiency. He is, however, well acquainted with the surgical literature and could only perform as he did by reminding himself of operations which other practitioners had performed. It also happens, however, that Mr. H's operation on Mr. F was one which caused Mr. F to believe anything he said at a certain time t_2 . Mr. H could not have performed the operation without the effects of the drug, his memories of other practitioners' cases, etc.

Does Mr. F know (ii)? Very likely not, yet our strict consolidation of (ii) and (iv) would still force us to say that he does. There was only one operation, which both justified Mr. F in believing (ii) and was a direct, active, and unidirectional cause of Mr. F coming to believe (ii).

I. The examples presented seem to indicate not only that Goldman's

causal analysis of knowledge cannot adequately deal with the problems it was introduced to solve, but that no causal analysis could do so.

I. Introduction

H. P. Grice's "The Causal Theory of Perception" constitutes a primary source concerning the causal criterion of perception. The bulk of this chapter is dedicated to a consideration of his contribution.

In what follows, I hope to show both that Grice's formulation of a causal analysis of perception is inadequate and that no causal criterion could adequately deal with the type of problem presented by counter-examples.

II. Grice's Cause Clause

H. P. Grice rather tentatively presents the following as an analysis of perception:

"(1) It is true that X perceives M if, and only if, some present tense sense-datum statement is true of X which reports a state of affairs for which M, in a way to be indicated by example, is causally responsible, and (2) a claim on the part of X to perceive M, if it needs to be justified at all, is justified by showing that the existence of M is required if the circumstances reported by certain sense-datum statements, some of which may be about persons other than X, are to be causally accounted for."

Two points concerning Grice's formulation call for preliminary clarification:

1. What is meant by "...[a]present-tense sense-datum statement is true of X which reports a state of affairs ..."? Grice notes:

"...The idea of explaining the notion of a sense-datum in terms of some member or members of the suggested family of locutions

... I shall, for present purposes, assume that some range of uses of locutions of the form 'it looks (feels, etc.) to X as if ' has the best chance of being found suitable."

Grice's attempt is to treat the 'state of affairs' in question through a neutral language of 'sense-data'. I hope in a later chapter to deal with the possibility of constructing such a neutral sense on the model of 'looks' locutions. Here my concern lies with the perceptual 'cause clause', and I will assume with Grice that there is some locution descriptive of the 'appearance', 'image', or 'impression' of a chair that is free from any implication of 'doubt or denial'.

2. Grice's formulation includes the phrase, "... a state of affairs for which M, in a way to be indicated by example, is causally responsible ...". In clarification, Grice says: "I suggest that the best procedure for the Causal Theorist is to indicate the mode of causal connexion by examples; to say that, for an object to be perceived by X, it is sufficient that it should be causally involved in the generation of some sense-impression by X in the kind of way in which, for example, when I look at my hand in a good light, my hand is causally responsible for its looking to me as if there were a hand before me, or in which ... (and so on), whatever that kind of way may be; and to be enlightened on that question one must have recourse to the specialist."

As I understand it, Grice's proposal is a straightforward though sketchy one. Possible sources of misunderstanding, however, should be considered in passing.

Were Grice to insist that the definition of 'perception' include a criterion x, 'the cause involved must be of type x', and

cause type x could only be indicated as 'the type of cause involved in perception', his effort would be viciously circular. As a matter of fact, however, Grice seems quite anxious not to include such an explicit statement in his account.

Grice's appeal to the specialist is not intended as an appeal for criteria for either our ordinary use of common perceptual verbs or for their possible replacements. Grice notes that "... if we are attempting to characterize the ordinary notion of perceiving, we should not explicitly introduce material of which someone who is perfectly capable of employing the ordinary notion might be ignorant." Nor does Grice consider his a revisionary effort: "It might be held that it is the task of the philosopher of perception not to elucidate or characterize the ordinary notion of perceiving a material object, but to provide a rational reconstruction of it; to replace it by some concept more appropriate to an ideal or scientific language ... but I shall not be concerned with theories on those lines." The possible improvement or replacement of our perceptual terms is not at issue, nor is Grice insisting that we await the specialist's report in order to use them. His suggestion is simply that the specialist may fill us in on the scientific details of a causal relationship that we recognize in using perceptual terms and that we can indicate by way of examples.

I thus take Grice to be insisting that there is a causal connection involved in perception, but that the type of causality involved remains to be clarified. I hope to show that Grice's account is insufficient simply because no causal criterion could adequately deal with the type of problems presented.

A. We may initially take Grice's account as the demand for a causal connection between 'the perceived' M and the state of affairs of X which is reported via some true present-tense sense-datum

statement. This alone is obviously not enough:

Mr. A is wandering near the edge of a dangerous precipice. He loses his balance and starts to totter. Luckily, Mr. B catches him in time and thus saves Mr. A's life.

Sometime later, Mr. A notices three orange blobs in his field of vision.

Do Mr. A's three orange blobs constitute a 'perception' of his being saved at some previous time by Mr. B? Certainly not; nonetheless, a state of affairs of Mr. A (three orange blobs in his field of vision), reported by a true present-tense sense-datum statement (it looks to Mr. A as if there were three orange blobs) is causally linked with Mr. B saving Mr. A's life. If Mr. B had not saved Mr. A's life, Mr. A would have had no orange blobs in his field of vision nor, for that matter, any other sense-datum.

The exemplary use of death in the case of Mr. A, of course, is as incidental as was its similar employment in examples of previous chapters. As the example stands it might be thought that we can avoid it simply by stipulating that 'the perceived' M not be causally connected with every subsequent state of affairs (or state of affairs reported via some true present-tense sense-datum statement) of X. But Mr. A need not be in danger of losing his life. Mr. B's function in the example, and thus the force of the example as a whole, are preserved if Mr. B saves not Mr. A's life but his continued consciousness, his ability to have 'sense-data', or his ability to have orange 'sense-data'.

Here as before, of course, it would be a mistake to demand that 'the perceived' M be causally connected only with the state of affairs of X in question. Such a move would force us to reject

any case of perception in which M was causally connected not only with that state of affairs but also X's surprise, X's remorse, or the subsequent report of some other eye-witness.

B. A simple causal criterion is obviously insufficient. How, then, is the 'cause clause' to be tightened? I can think of only two basic correctional possibilities. The first involves a simple tightening of causal 'type'. The second, and more promising, involves both an insistence on causal type and the demand that the state of affairs of X, reported via a true sense-datum statement, be in some sense interpretable as a 'representation' of its cause.

We may thus demand that 'the perceived' M be an 1/ active, 2/ direct, and 3/ unidirectional cause of the state of affairs of X. But this alone is clearly not enough:

Mr. B undergoes an operation, performed by Mr. C, on his retinal tissue. The purpose of the operation is to produce certain firings of Mr. B's retinal tissue at a set time t.

At time t Mr. B notices three orange blobs in his field of vision.

Once again, we have no need to say that Mr. B perceived, at time t, the operation performed by Mr. D. Yet even our tightest stipulation as to causal type is fulfilled.

C. A demand of 'medium', as pursued in chapter two, would be as fruitless here as in the case of knowledge. To insist that M be a bodily state of X, causally connected with the state of affairs of X, would illicitly limit us to the perception of bodily states. To insist that M cause a state of affairs of X, in turn the cause of a second state of affairs which may be reported via a true sense-datum statement, would still be to include Mr. B's case of non-perception.

We may, however, demand that the state of affairs of X, reported by way of a true present-tense sense-datum statement, be in some sense a 'representation' of M. At first sight, such a stipulation appears promising; it could adequately deal with the cases presented above. Even if coupled with a demand that the causal connection involved be 1/ active, 2/ direct, and 3/ unidirectional, however, it proves insufficient:

Mr. D has perfected a type of operation which he claims can produce, at a given time t_x , any given pattern of retinal firings. He has performed operations on patients E, F, and G, using fictional texts as his sources. His source for the Mr. E operation was Peter Rabbit. At time t_e , Mr. E reports sense-data corresponding to a scene from Peter Rabbit. Mr. D's source for Mr. F was Pickwick Papers. At time t_f , Mr. F reports sense-data corresponding to a scene involving Mr. Pickwick. Mr. D's source for Mr. G was The Musgrave Ritual. At time t_g , Mr. G reports sense-data corresponding to a scene from that work.

Mr. D now performs such an operation on Mr. C. His text, chosen at random, is from Dr. Kildare, M.D. By chance, it matches in significant detail the operation he is performing.

At time t_c , Mr. C reports sense-data corresponding in significant detail to the operation performed on him by Mr. D.

Has Mr. C, at time t_c , 'perceived' the operation performed by Mr. D? There is little reason to think so; yet even our requirements that the causal connection involved be active, direct, and unidirectional, and that the 'state of affairs' of X be in some sense representational of its cause, are fulfilled.

D. We might, as a last resort, demand that the situation involved be 'normal' or 'natural'; no complicated operations need apply.

The following, however, is a case of non-perception involving 'natural', direct, active, and unidirectional causality as well as satisfying the 'representational' stipulation:

In his childhood, Mr. D experienced a traumatic (sexual) association between fruit in general and apples in particular. The psychoanalyst in charge of Mr. D says that all fruit are associated, in Mr. D's mind, with an archetypal apple of sexual significance. Thus, whenever presented with any fruit, or when any fruit is mentioned, Mr. D goes into traumatic shock and reports sense-data pertaining to a large red apple. The psychoanalyst has labelled these sense-data 'D's'.

Mr. D is presented with a pear. He goes into shock, and screams "It's big! It's red! It has seeds inside!" Mr. D is presented with a prune, with the same result. Mr. D is now presented with an apple. He goes into shock, precisely as before, and screams "It's big! It's red! It has seeds inside!"

The question here is not whether Mr. D has perceived the apple, but whether his reported 'D's' constitute such a perception. I think there is little need to say so; 'D's', although appropriate to the apple, would have been produced by any fruit presented.

G. We have attempted to 'purify' Grice's 'cause clause' both through type distinctions alone and in conjunction with a demand that the state of affairs in question in some sense 'represent' its cause. In each case we have shown such additional restrictions to be inadequate. I see no way in which a causal criterion of perception could effectively deal with the problems presented.

As has been nostalgically noted, everybody used to have sense-data and now nobody does. The experiential account of seeing and seeming; whether formulated in terms of sense-data, ideas, impressions, images, or the like; has long been of importance in the philosophy of perception. It is in this realm that the changes characteristic of contemporary philosophical thought are perhaps most obvious.

In the following chapters I hope to consider some fairly recent contributions, traditional in their sympathies if not their arguments, to the subject of perception and experience.

SECTION II

CHAPTER 5

THE EXPLANATORY 'LOOKS'

I. Introduction

Karl Britton, H. H. Price, and A. Quinton's "Symposium: 'Seeming'" presents one of the foremost discussions to date on the subject of 'appearance'. This chapter is dedicated almost entirely to Price's contribution in that essay.

I hope to consider a number of difficulties facing Price's argument for a 'looks' which reports the observer's 'perceptual experience', and to suggest that it may involve a misunderstanding of at least some explanatory uses of 'appear' words.

II. The Problem

A. Britton's proposal for the analysis of 'appear' words (looks, feels, smells, tastes, seems, appears) is indicated as follows:

"I have just visited the church and have seen that the tower is a round one: yet now I say that it seems (physically) square. In saying this, I am (I think) referring to the judgment which I should make if I forgot what I have just seen but now no longer see.

"A similar analysis can be applied to other judgments about how it seems. 'The print seems to be jumping about': 'If I ignored the well-known fact that print does not jump without the page, and if I ignored my present feelings of dizziness and sickness, then I should judge that the print was jumping about.'"

B. It is in Price's reply to such a proposal that the argument of concern appears:

"Granted that if I were to ignore or forget certain relevant

facts, I should judge (believe) that the object is elliptical, we still have to ask why the judgement I should then make is just that particular one, rather than - say - 'this is square' or 'this is pear-shaped'? The ignoring or forgetting, of which Professor Britton speaks, might be a necessary condition for judging 'this is elliptical', but surely would not be a sufficient one. Something more is needed, namely the occurrence of a particular sort of perceptual experience, the very one I ordinarily describe by saying 'this now looks to me elliptical'. Very likely you would believe that the thing is elliptical, if you did not know, or forgot, or dismissed from your mind the fact that there is a screen surrounding it. But why? Because in those conditions of vision it just does look elliptical, though so long as you remember what the conditions are you do not believe it is really so."

In what follows I hope to consider both a negative and a positive point which may, I believe, be abstracted from Price's comments above.

1. Price's negative point, it appears, may be interpreted in either a stronger or a weaker form. In its stronger form it presents an attack on any 'tendency-to-believe' analysis of 'looks' statements. Thus Price insists that "what Professor Britton has done is to ignore this primary and perceptual sense of the word 'looks'." His stand might also be interpreted, however, as significantly weaker. Price speaks of a "slide" from the "perceptual" to the "tendency to believe" in moving from 'looks' to 'appears' and finally to 'seems'. At least at times, moreover, he insists not merely on a simple 'looks' but 'looks ... to me, from here, now'. "For these additional words make it

pretty obvious that the sentence is being used in its literal perceptual sense, and not in the metaphorical tendency to believe one." In its weaker form, then, Price's attack is on a 'tendency-to-believe' analysis of at least 'looks ... to me, from here, now'.

Whatever force is claimed for it, however, the negative argument remains much the same. It often appears perfectly legitimate to explain someone's tendency to believe something by using a 'looks' locution of one form or another. 'He believed (or was inclined to believe) that the stick was a snake because it looked like a snake.' (And perhaps) 'I have a tendency to believe that the stone is a milestone because it looks to me, from here, now, like a milestone.' Were a 'looks' or a 'looks to me, from here, now' statement equivalent to a 'tendency-to-believe', statement, however, our 'because' should be totally without explanatory force. As this is not so, it appears that any attempt to analyze either locution in terms of a tendency to believe must prove inadequate.

2. Price may secondly be taken as making a broader and positive point. He seems to take the fact that 'looks' may figure in explanations in the manner noted as evidence that at least some uses of 'looks' or 'looks to me, from here, now' must be understood as reporting the 'perceptual experience' of an observer. Price thus speaks of "...the occurrence of a particular sort of perceptual experience, the very one I ordinarily report by saying 'this now looks to me elliptical...', and criticizes Britton for ignoring "this primary and perceptual sense of the word 'looks'."

I think that Price's position at least involves some confusion and at most borders on a serious misunderstanding of the explanatory function of 'looks' locutions.

III. Price's 'Perceptual Experiences'

A. It is often quite difficult to get a firm grasp on exactly what Price is proposing in critique of, and as an alternative to, Britton's 'tendency-to-believe' account. Britton's account, as noted in preface, is explicitly one of 'seems'. Yet Price first insists that we discuss 'looks to me' rather than 'seems', and then criticizes Britton's proposal as if it were an account of the latter rather than the former. Britton is thus rather unfairly raked over the coals for ignoring the supposed 'visual' or 'perceptual' aspect of a term with which he was at least not primarily concerned.

As noted above, Price speaks of at least 'this now looks ... to me' as 'reporting a particular sort of perceptual experience' and of such a usage as representing the "primary and perceptual sense of the word 'looks'." Yet his later outline of such 'experiences' is far from helpful:

"The best way I can think of to describe these experiences is to say that they consist in having vivid visual images. But if it be preferred, I will say instead that there visually appear to me to be various objects ... which in fact there are not ..."

We are fairly obviously back where we started. At least some 'appear' words are treated as reports of 'perceptual experiences' and 'mental images', but these terms are in turn clarified through recourse to 'appear' words.

Price's recourse to 'perceptual experiences' and the like may be quite harmless; but only, I think, at the cost of being

equally empty. As will be suggested in chapter twelve, 'experience', like 'event', can be used as something like a placeholder or pronoun. To say 'the celebration was an exciting experience' is simply to say that the celebration was exciting. If this is the case, and if Price is as willing as he seems to be to stretch 'perceptual' to cover cases of seeing, looking, and seeming to see, then his claim that 'it looks ... to me' is associated with a 'perceptual experience' is guaranteed. At the same time, however, it is rather trivial; it is merely a rather complicated and misleading way of saying that 'it looks ... to me' is associated with seeing or looking or seeming to see. And this hardly constitutes either a needed analysis or an alternative to Britton's account.

Price does not seem to consider his positive presentation, however, to be an empty one. Despite the fact that the phrase 'perceptual experience' suggests an unilluminating re-statement of what is at issue, and although when pressed the 'perceptual experiences' "reported" by 'it looks to me' fade back into 'it visually appears to me', Price does speak as if he has something fairly definite in mind. It remains unclear both how strong he wants to make his claim (at various times speaking as if 'looks' locutions represented simply a report of the individual's 'perceptual experiences', at other times maintaining only that they involve such a report) and how much ground he intends it to cover (speaking at times as if all 'looks' locutions were at issue, but also retreating to a "literal perceptual" 'looks ... to me, from here, now'). But he is at least insisting that 'it looks ... to me, from here, now' is used in part to report something like a state or condition of, and somehow privy to,

the individual involved.

B. A strong interpretation of Price's thesis, I think, faces fairly obvious difficulties. Were 'appear' statements purely reports of some private occurrence, as Price at times seems to maintain, then statements of the form 'X now looks Y to B' and 'B now seems to see a YX' would presumably be equivalent. But this, of course, is patently not the case. One can 'seem to see' a purple bandicoot, an ugly caterpillar, or a snake-like stick with one's eyes closed. A bandicoot, a caterpillar, or a stick cannot look purple, ugly, or snake-like to one if one's eyes are closed.

C. It thus appears that Price might at most maintain that 'appear' statements are 'primarily' or 'essentially' reports of one's 'perceptual experiences'. In addition to such a suggestion previously quoted, he does speak of the transition from 'looks' to 'seems' as one in which "the situation with which we began is decisively reversed" and 'seems' as a term in which "the tendency-to-believe sense is now the primary one".

But even a significantly weakened thesis that 'looks ... to me, here, now' and the like at least include a 'report' of the state or condition of the individual (which may, of course, be all that Price wishes to maintain) faces a number of difficulties.

Price appears throughout his essay to be wary of exhuming hoary philosophical difficulties. He is thus quite careful to defend his proposals against what he terms the "iron curtain" objection of a world "hidden behind a veil of sense-data". Yet even the weakest form of Price's thesis seems to force us immediately into vintage problems. Some of these are examined in their own right in later chapters, but deserve mention here as well.

The 'perceptual experiences' at issue have the suspicious ring of something to which the individual to which 'it lookw ...' has access but to which others neither have nor can have. Here a number of traditional difficulties threaten to raise their ugly heads.

How is one to tell that the 'certain perceptual experience' that X reports by 'it looks green' is not the 'certain perceptual experience' that Y reports by 'it looks red'?

If Z cannot distinguish between G things and R things, how is one to tell whether this is because both produce the 'certain perceptual experience' g or the 'certain perceptual experience' r?

Each of these is further treated in chapters eleven and twelve; but not, I think, in a manner consistent with Price's proposal. Their significance here is that even a softened Pricean thesis seems to bring in its wake what have often been considered signs of having gone astray.

IV. The Explanatory 'Looks'

If interpreted in a non-trivial fashion, Price's alternative to Britton's account faces traditional difficulties. It remains to be suggested that Price's argument for such a thesis on the basis of an explanatory 'looks' is inadequate. The intended application of Britton's account aside, it is far from clear that an explanatory 'looks' forces us to accept Price's report of a privy state of the individual as an alternative.

We commonly ask questions and give answers like the following:

1. Why did he take the wrong bus?
 - a. He was overworked and could hardly see straight.
 - b. The first bus to pull up was remarkably similar to the

one he usually takes.

2. Why did he mistake the stick for a snake?

a. He was drunk and is deathly afraid of reptiles.

b. It was variegated in colour and moved when he stepped on it.

3. Why does he try to open the door with his penknife?

a. He is nervous and in a hurry.

b. The penknife is about the size and weight of the key and was the first thing he found in his pocket.

In each case, answer (a) appeals to something like a state or condition of the individual involved. It is due to nervousness that he fumbles so, to fatigue that he takes the wrong bus, and to drunkenness that he mistakes the stick for a snake. We often explain why someone is doing something by referring to his emotional or mental state; he vomits because he feels sick and jumps up and down because he is excited.

In each case answer (b) appeals not to a condition of the individual but to some other state of affairs. It was due to the similarity of the buses that he took the wrong one, to the misleading weight and size of the penknife that he tried to open the door with it, and to the colours and movement of the stick that he mistook it for a snake. We similarly appeal to such a state of affairs in explaining an accident as due to a misplaced sign or a death as due to the enemy's camouflage.

We also often use both forms of explanation together. He tried to open the door with his penknife because he was nervous and it was about the size and weight of a key. He mistook the stick for a snake because he was drunk and it moved when he stepped on it. Nor can it be claimed that the two types of explanation

are exhaustive. 'He took the wrong bus because he mistook it for the right one' seems to fit neatly in neither category.

Each of these explanations is undeniably legitimate. The important thing here, of course, is that we can also say the following:

1c. He took the wrong bus because it looked (to him, from there, then) like the right one.

2c. He mistook the stick for a snake because it looked (to him, from there, then) like a snake.

3c. He tried to open the door with his penknife because it looked and felt (to him, from there, then) vaguely like a key.

Answers (c) may belong with groups (a), (b), another group, or simply on their own. I hope here to suggest merely that they often show affinities with the second group, and thus that at least in many cases an understanding of their explanatory force need not be sought in the troublesome area that Price proposes.

There is a fallen tree in my home town that looks like a dragon. Rumour has it that Genet looks younger since the operation. Turn right at the building that looks like a gaol house.

We often speak of things 'looking' one way or another when we are not at present looking at them and even when we know that no-one is looking at them. We give directions and tell stories and indicate places of interest using a 'looks' which need not involve a 'report' of anything happening to anyone whatsoever. We also give explanations using such a 'looks'.

We often use 'looks', in short, in what might be termed a substantial sense. The fallen tree in my home town looks like

a dragon in that it is supported by four branches, has a split gnarl on one end, and trails off to a point at the other. Genet looks younger since the operation in that the wrinkles are gone and she smiles more. The building looks like a gaol house in that it is of brick, has no visible entrance, and the windows are barred. The added descriptions, without reference to an observer and without overtones of privacy, fill in the 'looks' claims and make them more specific. We are told in what respects the tree looks like a dragon or Genet looks younger since the operation. In each case, I think, 'looks' serves in part a descriptive function no more mysterious (though perhaps more general) than that of the added specifics.

In many cases, I think, answers (c) can be used in this way. To function appropriately as an explanation, the fact that the wrong bus looks like the right one need only involve its similarity to it. The fact that the stick looks like a snake may involve its variegation in colour and slimy texture. The fact that the penknife looks and feels like a key may involve the similarity of its size, shape, and weight to those of a key.

It should be noted that 'to me', 'from here', 'now', and similar qualifications are sometimes added to a simple 'looks' to introduce hesitancy or to imply a contrast. Were I to give directions to my flat in terms of two possible routes, I might say of the same building that it looks like a gaol house from here (driving north) and a typical Greek villa from there (driving east). One can see the barred windows but not the portico from the south. The fallen tree looked like a dragon until the vandals cut off its 'head', and it now looks more like an anteater. If

David and I sketch fantastic creatures suggested by a certain cloud formation, I may say it looks to me like a unicorn although he has insisted on drawing a gryphon. In some cases the contrast implied by the use of these appended particulars may call for an explanation in terms of the state or condition of the individual (compare 'it looks orange to Joe' 'yes; he has a slightly diseased retina' and 'Joe's eyes are widely dilated' 'yes; he has a slightly diseased retina'). But other types of explanation also abound. It looks like a gaol house from here because one cannot see the portico from the south side. It now looks like an anteater because the vandals sawed off a portion. The cloud looks like a gryphon to David because he's been reading Dante or because he ignored the upper left portion.

In many cases a mistake may be properly explained using a 'looks' locution; but the 'looks' in question is at least often a substantial one. He mistook the woman for his mother and not his sister because she looked like his mother but did not look like his sister. The 'looks' in question, however, may involve a general reference to mundane things such as grey hair and spectacles and need not constitute a report of such ethereal things as maternal and sisterly images. He mistook the stick for a sidewinder and not a cobra because it looked like a sidewinder and did not look like a cobra. But here again the 'looks' explanation may well be of the type that can be filled in with something on the order of 'it had a sinuous shape and slimy surface but lacked anything resembling a hood.'

Price's thesis, and the traditional problems it forces upon us, may be the result of overlooking the explanatory force of a substantial 'looks' or something like it. His first point

concerning the 'tendency-to-believe' formulation thus becomes a simple reminder that Britton's formulation will not satisfactorily cover all 'looks' locutions. His second point, and thus his defence of 'looks' or 'looks ... to me' as a report of the observer's 'perceptual experience', may be significantly in error.

SECTION II

CHAPTER 6

IMPLICATION AND ALTERABILITY

I. Introduction

H. P. Grice's "The Causal Theory of Perception" presents one of the most elegant and sophisticated arguments available for the possibility of constructing a sense of 'sense-data statement', satisfactory to the sense-data theorist, on the model of ordinary locutions such as 'it looks ϕ to me'. This chapter will deal exclusively with Grice's work.

Some problems facing Grice's causal account of perception were presented in chapter four. I hope here to suggest that both his argument and similar attempts to construct a 'neutral' sense of sense-data may rest on a misconstrual of at least some 'looks' locutions.

II. A Sketch of the Problem

A. Grice's argument is explicitly against an opponent who maintains, on the following grounds, that any attempt to construct a satisfactorily 'neutral' sense of 'sense-data' is futile:

(1) There is something *prima facie* odd about my saying 'That looks red to me' when I am confronted by a British pillar box in normal daylight at a range of a few feet.

(2) That it is a feature of the use, perhaps the meaning, of such locutions as 'looks to me' that they should carry the implication that the 'doubt or denial' condition (the object referred to is known or believed by the speaker not to be ϕ , or it has been denied by someone else to be ϕ , or that the speaker is doubtful whether it is ϕ , or the situation is such that though no doubt has actually been expressed and no denial has actually been made, some person or other might feel inclined towards denial

or doubt if he were to address himself to the question whether the object is actually \emptyset) is fulfilled.

(3) That in cases where the 'doubt or denial' condition is unfulfilled, the utterance employing the 'looks to me' locution, far from being uninterestingly true, is neither true nor false.

B. Grice distinguishes two types of alteration which may be applicable to implications:

(1) The implication Y of an utterance X is detachable if and only if a form of words Z may be found which asserts precisely what X asserts without carrying the implication Y.

Grice's example is 'She is poor but she is honest', where the implication that poverty is somehow opposed to honesty is detachable by replacing the original with 'She is poor and she is honest'.

(11) The implication Y of an utterance X is cancellable if and only if a form of words Z may be appended to X such that (X + Z) asserts precisely what X asserts without carrying the implication Y.

A suitable example here is 'The principal is sober today', where the implication of uncustomary sobriety is cancellable by adding 'but I don't mean to imply that he is often drunk.'

Grice then goes on to argue the following points:

(1) The 'objector's point (3) is false: a statement of the type 'it looks \emptyset to me' may be false without the implied 'doubt or denial' condition obtaining. Grice's example is the following:

"Suppose that I am confronted in normal daylight by a perfectly normal pillar box; suppose further that I am in the presence of a normal, unsceptical companion; both he and I know perfectly well that the pillar box is red. However, unknown to him, I suffer

chronically from Smith's Disease, attacks of which are not obvious to another party; these attacks involve, among other things perhaps, the peculiarity that at the time red things look some quite different colour to me. I know that I have this disease, and I am having (and know that I am having) an attack at the moment. In these circumstances I say, 'That pillar box looks red to me'."

Grice suggests that here the 'doubt or denial' condition is not fulfilled, and yet that when the companion learns about the speaker's attack of Smith's Disease, he will certainly think that what was said by the speaker was false.

(2) The objector, therefore, is at most left with the contention that the fulfillment of the 'doubt or denial' condition is a partial truth condition for statements such as 'it looks \emptyset to me'.

(3) The 'doubt or denial' implication of statements such as 'it looks \emptyset to me' is not a logical implication. This is shown by the unacceptability of 'If this pillar box looks red to me, then I or someone else is, or might be, inclined to deny that it is red or doubt whether it is red.' (A discussion of Grice's use of 'logical' is offered below.)

(4) In order to preserve his thesis, the objector must argue that the implication of utterances of the type 'it looks \emptyset to me' is non-detachable. If he insists that it is non-detachable, but allows that it is not a logical implication, then he must allow that it is cancellable. The one instance introduced of a non-cancellable and non-logical implication ('She is poor but she is honest') is such precisely because it is detachable.

Grice concludes: "...If you say that the implication of the

fulfillment of the doubt or denial condition is (a) not logical in character and (b) not detachable, then you must allow that it is cancellable. And this is all the sense-datum theorist needs.' If there is an answer to this argument, I do not at present know what it is."

C. I shall attempt, in what follows, to present at least a partial answer to Grice's argument. I must first, however, offer a brief and admittedly cursory discussion of the complex topic of implication and its alterability.

III. The Anatomy of Implication

A. Grice devotes a major section of his essay to a consideration of implication as it is represented by the following examples, among others:

(1) 'Smith has left off beating his wife', where what is implied is that Smith has been beating his wife.

(2) 'She was poor but she was honest', where what is implied is (very roughly) that there is some contrast between poverty and honesty, or between her poverty and her honesty.

For my purposes it will be convenient to add:

(3) Were someone to say, 'The puppies are all either black or white, and this one's not black', we would take him to be implying (if not outright saying) that the puppy in question is black.

(4) If in the heat of a parental argument one of the participants were to say, 'Johnny's only three years old', they could be implying that he should be given some special consideration because of his age.

First to be distinguished, on Grice's lead, are 'logical implications'. Grice appears to use the following criterion: an implication Y of an utterance X is a logical implication of X if and only if 'X, but not Y' is unintelligible and 'If X, then Y' true. Grice's use of 'logical implication' is instrumental for his argument;

as outlined in preface, his position rests on the crucial rejection of a 'logical' status for the doubt or denial implication of 'looks' locutions. For the sake of clarity and in light of the ambiguity of a test by 'unintelligibility', however, we might do better to rely on what have traditionally been termed 'logical implication' or 'logical entailment' (X entails Y if and only if 'X and not Y' is formally inconsistent) and 'presupposition' (X presupposes Y if and only if Y must be true in order for X to be either true or false). I don't think a substitution of the disjunctive 'logical entailment or presupposition' for Grice's 'logical implication' seriously affects either the form or the force of his argument.

B. The broad area that Grice approaches in terms of implication is an extraordinarily complex one. Suggestions, hints, innuendoes, allusions, and insinuations are all involved, and detailed considerations of the context of an utterance often become crucial. It is, moreover, far from evident either that 'logical entailment' or 'logical implication' bear much resemblance to their more ordinary relatives or that they offer much clarification. As Grice clearly recognizes, not all implications (taken either as including insinuations and the like or simply on their own) fit the pattern of either 'entailment' or 'presupposition' as outlined above. At first glance, at least, it seems to be cases which don't fit either pattern that we normally speak of as cases of implication.

(2) and (4) seem obvious cases of implication with the form of neither 'entailment' nor 'presupposition'. In neither case is the truth of the suggested implication a necessary prerequisite for the sentence being either true or false. (2) could be false in that she is rich or dishonest, and (4) could be false in that Johnny is five. In neither case, moreover, is the affirmation of the sentence

and denial of the suggested implication formally inconsistent, though it is at least linguistically awkward.

(2) and (4) are further marked, however, by a peculiarity Grice explicitly notes in discussing the second case:

"The fourth and last test that I wish to impose on my examples is to ask whether we would be inclined to regard the fact that the appropriate implication is present as being a matter of the meaning of some particular word or phrase occurring in the sentences in question. I am aware that this may not be always a very clear or easy question to answer; nevertheless I will risk the assertion that we would be fairly happy to say that, as regards (2), the fact that the implication obtains is a matter of the meaning of the word 'but'..."

The implication of (4), I think, might be agreed to rely on the term 'only' as much as that of (2) relies on the term 'but'. It is similarly the 'merely' of 'Dali is merely a good draftsman' that tends to cast aspersions on his artistic ability or importance, the 'usually' of 'He's usually a good fellow' that hints at contrary instances, and the 'so' of 'She failed her exams and so became a clerk' that suggests a connection between the two.

In each case we are presented with an implication hanging on a word or phrase and neither entailed nor presupposed by the sentence in question. If asked what it is which does the 'implying' in each case, I think it would be safest to say that the speaker makes the implication in question by using the particular words he does. Grice offers no firm criterion for this type of implication, either simply in terms of truth and falsity (as entailment and presupposition were outlined) or as a clearly demarcated form of

implication easily isolated once implication as a whole is understood. At this writing I cannot supply such a criterion. For present purposes, however, and because Grice clearly recognizes such a type of implication, the rough sketch presented here should be sufficient.

C. A further distinction may be drawn between types of alteration to which implications may be susceptible. Consider the following:

(2) 'She was poor but she was honest', where what is implied is (very roughly) that there is some contrast between poverty and honesty, or between her poverty and her honesty.

(5) 'She was honest and therefore, of course poor', where what is implied is (very roughly) that 'honesty breeds poverty' or that her honesty bred her poverty.

(6) 'I am inclined to say that the situation is dangerous', where it is implied that someone else might tend to say that it is other than dangerous or that the speaker is in doubt as to its safety.

(7) 'I might be tempted to agree', where it is implied that there might be some reason not to agree or that the matter remains an open question.

Each of these seems a prime candidate for that class of implications roughly indicated, with Grice's help, above. The distinction I wish to draw, however, is between two types of alteration (detachment or cancellation). The following may serve as introductory definitions:

An implication Y of an utterance X is mediately alterable (detachable or cancellable) if and only if that form of expression Z used as substitution for X, in cancellation or detachment, carries no implication as to either Y or not-Y.

An implication Y of an utterance X is immediately alterable (detachable or cancellable) if and only if that form of expression Z used as substitution for X, in cancellation or detachment, carries

an implication as to not-Y.

The distinction between mediate and immediate cancellability or detachability of an implicative utterance rests on the presence or absence of some neutral and middle ground. Thus cases (2) and (5) are mediately alterable. A simple 'and' is available mid-way between the negative (honesty is in contrast to poverty) and positive (honesty is closely tied to poverty) implications signalled by a 'but' or a 'therefore, of course'. Similarly 'He's only three years old' and 'He's all of three years old' are mediately alterable through an appeal to the relatively implication-free 'He's three years old', and 'He arrived promptly at eight' and 'He finally arrived at eight' can agree on a neutral 'He arrived at eight'.

If alterable at all, the implications carried by (6) and (7) on the other hand are what I wish to class as only immediately alterable implications. Here there is no middle ground. By saying X one implies Y, and any attempt at detachment or cancellation forces one either to unintelligibility or to an implication in the other direction; that of not-Y.

Grice's test for the cancellability of (2) took the following form:

"...if someone were to say 'She is poor but she is honest, though of course I do not mean to imply that there is any contrast between poverty and honesty', this would seem a puzzling and eccentric thing to have said; but though we should wish to quarrel with the speaker, I do not think we should go so far as to say that his utterance was unintelligible; we should suppose that he had adopted a most peculiar way of conveying the news that she was poor and honest."

Much the same test, despite its obvious faults, seems applicable to the examples above. Whereas the assertion of (2) or (5) and denial of their suggested implications is either unintelligible or suggests the neutral ground of 'She is poor and honest', however, the assertion of (6) or (7) and denial of their suggested implications seems either to be unintelligible or to suggest an implication in the opposite direction. By choosing to insert 'I am inclined to say' in 'I am inclined to say that the situation is dangerous', one implies that it might be thought otherwise or that some doubt remains. Tack on a rider such as '...but I don't mean to imply that someone else might consider it otherwise, nor that there is any doubt about the matter' and the entire locution becomes quite puzzling. If sympathetically understood on the model of Grice's (2), it becomes a rather cumbersome way of saying 'it's dangerous'; why didn't one simply leave out the 'I am inclined to say ...'? To say 'I might be tempted to agree' is to imply that there is something holding one back or that the matter is still in doubt. To add '...though I don't mean to imply that there is any reason not to nor that the question is still open' is to produce a very puzzling utterance as a whole. If sympathetically understood, however, it seems to indicate simple agreement; why didn't one simply leave out the 'I might be tempted to'? To say 'He gives the impression of being a wealthy man' or 'to all appearances he is a legitimate businessman' is to imply that there is something to suggest the contrary or that the matter is open to question. Here as before the attempt at alteration produces either simple confusion or, on a sympathetic reading, the contrary implication. To say 'He gives the impression of being a wealthy man, though I don't of course mean to imply that he isn't or that there is any question about the matter' is to leave an audience wondering why one used 'gives the impression' in

63

the first place. Surely it would have been more to the point to leave it out. To say 'To all appearances he is a legitimate businessman, though I don't mean to imply the contrary or that his legitimacy is in doubt' is similarly to seem to eat words. Why insert 'to all appearances' in the first place?

Interestingly enough, each of these both carries what might broadly be termed a 'doubt or denial' implication and suggests Britton's 'tendency to believe'.

IV. Neutrality and Immediately Alterable Implicatives

A. Grice's argument, as presented in section II, rests explicitly on the impossibility of a non-logical, non-detachable, and non-cancellable class of implicatives. In order to formulate a neutral sense of 'sense-data' on the model of locutions such as 'it looks ϕ to me', however, it is necessary to show not only that those locutions belong to a class of cancellable or detachable implicatives, but that what is involved is a mediate and not simply an immediate mode of alteration. That the implication Y of an utterance X is alterable is not enough for the satisfaction of a neutral sense of the expression in question; the alterability must be to a form of words Z which carries no implication as to either Y or not-Y.

The following examples from section II appear to carry either unalterable or only immediately alterable implications, exhibiting neither presupposition nor entailment and unsuitable as a model for the construction of a 'neutral' sense of the term involved:

(6) 'I am inclined to say that the situation is dangerous', where it is implied that someone else might consider it otherwise or that some doubt remains as to its safety.

(7) 'He gives the impression of being a wealthy man', where it

is implied either that he is not or that his financial status is in doubt.

(8) 'I might be tempted to agree', where it is implied that there might be some reason not to agree or that the matter remains an open question.

(9) 'By all appearances he is a legitimate businessman', where it is implied that one doubts or is in doubt about his legitimacy.

Each of these, I think, involves an implication of the type discussed above which is at most immediately alterable. It appears, therefore, that the function of 'tempted to's, 'inclined to's, 'give the impression's and 'by all appearance's is one overlooked by Grice's argument and unsuitable as a model for the construction of a neutral sense. It remains to be suggested that it is here that at least some locutions such as 'it looks \emptyset to me' and the like may belong as well.

B. A more complete discussion of 'appear' words is presented in chapter eight, but for present purposes the following sketch should be sufficient. Grice lists the following as the type of locution which could be used as a model for a suitably neutral sense of 'sense-data':

'So-and-so looks \emptyset (e.g. blue) to me.'

'It looks (feels) to me as if there were a \emptyset so-and-so.'

'I seem to see something \emptyset .'

I am not convinced that 'looks' locutions of every sort and always carry a 'doubt-or-denial' implication. 'You look beautiful', I tell my wife before going to a party, and surely it is both given and taken as a compliment. Did 'looks' always carry a 'doubt or denial' implication, however, I could at most be said to have paid her a 'backhanded' compliment.

I do think, however, that 'it looks ϕ to me' and the like at least often carries such an implication. Where it does so, moreover, it seems to be either unalterable or alterable in only an immediate sense. To use 'looks ... to me', 'feels to me as if it were', and 'seem to see', rather than a standard 'is', 'see', or some other member of the indicative class of perceptual locutions, is at least often to imply the fulfillment of something like what Grice has termed a 'doubt or denial' condition.

To attempt an alteration of the implication carried by such locutions, by way of either cancellation or detachment, seems not to strike out for neutral ground but to establish an implication in the other direction. Thus by saying 'it looks red to me' one normally implies that there is some reason to believe or that someone might maintain that it is not red, or at least that its true colour remains in doubt. To append a 'though there is no reason to entertain that it is not red, or that its colour is in doubt' is not to neutralize the implication but either simply to leave an audience puzzled or to suggest the other and positive direction. To say 'it looks (or feels) to me as if it were a tomato' is to imply that there is some doubt whether, or some reason to deny that, it is a tomato. To append the phrase 'though there is no reason to entertain that it is not a tomato, nor any doubt as to what it is' is not to strike for neutral ground but to leave an audience either simply confused or wondering why one didn't simply make a positive statement in the first place.

Grice came very near this point himself:

"More fully the reason it would be peculiar to say 'She was poor but she was honest, though I do not mean to imply that there is any contrast' is that anyone who said this would first have gone

out of his way to find a form of words which introduced the implication, and then would have gone to some trouble to take it out again. Why didn't he just leave it out?"

The structure of 'but' in Grice's example and that of 'seems', 'appears', or 'looks' in the perceptual case are to some degree similar in that anyone who used 'but' or 'seems' would have gone out of his way to make tracks which he subsequently busied himself in trying to cover. Here, however, the similarity stops. The attempt at alteration in the 'poor but honest' case, when sympathetically considered, suggests a neutral ground of 'poor and honest'. In the case of 'looks to me', the attempt at alteration seems if anything to suggest a simple positive statement.

C. Grice's argument for the possibility of formulating a 'neutral' sense of 'sense-data' rests on the supposition that the implications of statements of the type 'it looks \emptyset to me' involve neither entailment nor presupposition and are thus either detachable or cancellable. It may at least be suggested, however, that statements of the form 'it looks \emptyset to me' and 'I seem to see a \emptyset so-and-so' may at least often be grouped with 'merely's, 'gives the impression's, and 'inclined to say's as either simply unalterable or only immediately, rather than mediately, alterable implicatives. The possibility of so construing them seems to indicate a difficulty facing both Grice's argument and any attempt to construct a neutral sense of 'sense-data' on their model.

SECTION II

CHAPTER 7

THE PRIMACY OF EXPERIENCE

I. Introduction

G. E. M. Anscombe's "The Intentionality of Sensation: A Grammatical Feature" and R. Chisholm's Perceiving present two of the foremost considerations to date of 'seeing' and 'seeming', respectively. This chapter will deal exclusively with their work, treating each as a representative plea for the 'primacy of experience'.

I hope to show that certain features of both Anscombe's and Chisholm's positions fail for largely the same reasons, and thus that no 'experiential' account of either 'seeing' or 'seeming' could prove adequate.

II. Anscombe's Seeing

After an initial discussion of the nature of 'intentionality' in general, Anscombe applies her results to sensation:

"In the philosophy of sense-perception there are two opposing positions. One says that what we are immediately aware of in sensation is sense-impressions, called 'ideas' by Berkeley and 'sense-data' by Russell. The other, taken up nowadays by 'ordinary language' philosophy, says that on the contrary we at any rate see objects.

"I wish to say that both these positions are wrong; that both misunderstand verbs of sense-perception, because these verbs are intentional or essentially have an intentional aspect. The first position misconstrues intentional objects as material objects of sensation; the other allows only material objects of sensation; or at any rate does not allow for a description of what

is seen which is e.g. neutral as between its being a real spot (a stain) or an after-image, giving only the content of an experience of seeing ..." (my italics)

Anscombe cites a number of examples, of which the following are a representative sample, as evidence for the essential intentionality of seeing:

"2. 'I see the print very blurred: is it blurred, or is it my eyes?'

3. 'Move these handles until you see the bird in the nest.' (Squint-testing apparatus; the bird and the nest are on separate cards)

4. 'I see six buttons on that man's coat, I merely see a lot of snow flakes framed by this window-frame -- no definite number.'

Anscombe later argues for the primacy of intentionality:

"While there must be an intentional object of seeing, there need not always be a material object. That is to say 'X saw A' where 'saw' is used materially, implies some proposition 'X saw ____' where 'saw' is used intentionally; but the converse does not hold. This leads to the feeling that the intentional use is somehow prior to the material use."

A. Anscombe never goes so far as to claim that what we see are intentional objects; fighting the analogously 'material' treatment of 'sense-data' on one side, she simply insists that 'seeing' is 'essentially' or 'in some prior sense' intentional. Nonetheless, she whole-heartedly adopts an 'experiential' account of seeing; seeing is taken as "essentially having an intentional aspect"; that is, as "giving only the content of an experience."

B. We may distinguish between three cases of seeing:

1. 'I see the cat on the mat' (the cat on the mat exists)
2. 'I see six buttons on that man's coat, I merely see a lot of snow flakes framed by the window-frame.' (There exist 2,000 snow flakes)
3. 'I see the mountains burning up and the rubbish, and the rough and crooked ways and places made smooth and plain ...'
(The prophet speaks; none of this exists)

It is the second case that Anscombe hopes to include as a legitimate instance of 'seeing' by emphasizing the 'essential' intentionality - or experientiality - of seeing. The third case, however, presents an obstacle for such an attempt.

(3) may be agreed upon, I think, as a clearly 'extended' notion of seeing. Certainly if any of the above offers an 'extended' notion, it is the third. The prophet's eyes are shut, he doesn't run in panic from the levelling hills, and speaks of things which both he and we know are not occurring. It is here, if anywhere, that we are justified in putting inverse commas around 'see'; "I 'see' the mountains burning ..."

If Anscombe were right concerning the primacy of 'experiential content', however, the prophet's statement should be the last to grow inverse commas; for it would be the 'purest' form of seeing. In fact, and as indicated by our inclination to take the third case as the least and not the most literal or straightforward, the prophet's case is one not so much of 'seeing' as 'seeming to see'. The prophet could have easily replaced his 'see' with a 'seem to see'. I would not think of saying 'I seem to see the cat on the mat' when, in ordinary circumstances, I do see the cat on the mat.

C. Were 'seeing' primarily or essentially experiential or intentional, then 'seeing' and 'seeming to see' would be 'essentially' equivalent and interchangeable expressions. 'Seeing', however, is not 'seeming to see'; the speaker in (2) above would not wish to say (and would mislead if he did say), 'I seem to see a lot of snowflakes'; for he does see them; he sees a definite number of snowflakes under one (a numerically indeterminate) description.

D. Anscombe's essay is an attempt to argue for a primary 'intentional' or 'experiential' sense of 'see'. Part of her emphasis here is on the 'possible non-existence of the object'. But, as she notes, other characteristics of intentional verbs are important as well:

"There are other features too: non-substitutability of different descriptions of the object, where it does exist; and possible indeterminacy of the object."

Her characterization, however, seems to ignore several important areas of divergence between perceptual and intentional verbs. Anscombe lists 'to think of', 'to worship', and 'to shoot at' as "obvious examples of intentional verbs". We might also add 'to wish for', 'to hope for', 'to expect', 'to anticipate', 'to look for', 'to search for', 'to await', and 'to imagine'.

A first divergence is evident with respect to 'that' and 'to be' phrases. Both perceptual and intentional verbs deny the possibility of substitution in such a case; if x is both a sailor and a deck hand, I can both imagine that he is a sailor without imagining that he is a deck hand and see that he is a sailor without seeing that he is a deck hand. Such a similarity, however, is largely superficial. Perceptual verbs demand a truth that

intentional verbs do not; I can imagine him, but cannot see him, to be something he is not. I can imagine him to be a soldier even if he is not, can wish him to be an academic even if he is not, and can expect him to arrive at eight even if he does or will not. I cannot see him to be a soldier if he is not any more than I can see him to arrive at eight if he does not. I can think that he is a soldier, wish that he were an academic, and expect that he will arrive at eight even if he is or does not. I cannot see that he is a soldier or an academic if he is not, and cannot see that he will arrive if he will not.

It is, however, with non-prepositional forms such as 'see x' and 'imagine x', rather than 'see that x' and 'imagine that x', that Anscombe is concerned. Here, however, it is at least arguable that a similar divergence to that noted above appears. Anscombe's examples urge seeing an indeterminate number of snow flakes, non-existent rays, and birds not in nests. In each of these cases, however, perceptual verbs seem bound to a truth-value that intentional verbs do not in that in each of these cases a corresponding 'existential' statement is possible. The optician may ask us to tell him when the bird is 'in' the nest, and a companion may point out that 'rays' flow from the unprotected bulb. In the tightest cases we may furthermore rephrase the 'object' in question as 'what appears to be ...'. Thus my house may both be and be seen to be (what appears to be) a blue smudge on the horizon. The moon both is and may be seen to be (what appears to be) an orange disc behind the clouds. It makes no sense, however, to use such an expansion with intentional verbs; to imagine a soldier is not to imagine what appears to be a soldier any more than to think of a blue smudge is to think of what appears to be a blue smudge.

It thus appears that Anscombe's 'intentionality' of perceptual verbs rests on an oversimplification of the differences between imagining, thinking of, and anticipating on the one hand and seeing, hearing, and tasting on the other. Even where a limitation as to substitution is evident (as in 'seeing that'), perceptual locutions remain tied to truth within the 'object' range in a way in which purely intentional locutions do not.

E. The alternative is to view Anscombe's 'intentionality' not as a matter of 'experience' but of knowledge. We may thus turn again to our examples, adding:

4. 'When you screw up your eyes looking at a light, you see rays shooting out from it.' (there is a light)

Rather than subject myself to the meshes of a term such as 'primacy', I will simply argue that example (1) above represents a sense of 'see' from which the others are derivable. My guess is also that it is statistically the most frequent and earliest learned of the forms as well. If that is primacy, then my guess is that it is primary.

The 'seeing' of (2) can be easily rephrased as a combination of 'seeing' (1) and of knowledge obtained by that seeing (that is, by looking). Thus 'I merely see a lot of snow flakes on the window ledge' is equivalent to 'I see a lot (some large but indefinite number) of snow flakes on the ledge and I do not know (or cannot tell) just by looking how many there are.' This sense of 'seeing' may also be taken as akin to 'seeing that'; 'I merely see lots of snow flakes' then becomes 'I can only see that there are lots of snow flakes - not that there are 2,000'.

The 'seeing's of (3) and (4) are a bit different; they each

involve the mention of an object which does not exist. There are neither (visible) rays nor burning mountains.

In each case, however, we may rewrite 'see' as 'seem to see' (a move, I think, corresponding to the 'what appears to be' mentioned above). 'When you screw up your eyes looking at a light, you seem to see rays shooting out from it.' 'I seem to see mountains burning ...' We may finally distinguish between the 'seeming to see' of (3) and (4) (a necessary move if we are to explain why (4) grows inverse commas more readily than (3)), by pointing out that (4) must at least involve some looking - one must be attentive, have one's eyes open, and the like - whereas (3) need not. In the case of (3), 'seeing' comes very close to simply envisaging.

III. Chisholm's Seeming

Chisholm makes the following tripartite distinction with respect to 'appear' words (appear, seem, look, sound, smell):

1. Epistemic use, e.g. 'This ship seems to be moving'; we may infer that the observer is inclined to believe that the ship is moving.

2. Comparative use, e.g. 'Straight sticks seem bent in water', which may be rendered as 'straight sticks in water seem to the observer in the way in which sticks that are bent seem under certain (standard, normal, optimum) conditions.' This introduces:

3. Noncomparative use, in which the observer may be said to know whether the statement is true, even if he knows nothing about ships or sticks, because it is about the perceptual condition of the observer.

In line with his interpretation of noncomparative uses of 'seem' as 'about the perceptual condition of the observer',

Chisholm introduces the following 'translation' of 'seem'-statements which is intended to avoid the grammatical form of the original and with it the temptation to speak of 'sense-data';

'X seems (noncomparatively) blue to S' is rewritten as 'S is appeared to bluely'.

A. Chisholm appears to want his 'translation' to capture what he sees as the essential nature of the noncomparative 'seems'; a report of the 'perceptual state of the observer'. As such, he hopes his account will avoid the pandora's box of the sense-data theorist. It should be obvious, however, that Chisholm both fails in his immediate goal of a 'condition of the observer' translation, and in thinking of such a translation as a final solution.

Chisholm's translation still contains an 'it', simply because it is in the passive voice and because the passive involves an understood 'it'. 'S is appeared to bluely' allows or even encourages the question 'By what?'; and to the extent that it does so it fails to be solely 'about the perceptual condition of the observer.' Moreover, Chisholm's goal of an 'experiential' account, like Anscombe's of an 'intentional' account, would ultimately fail to deliver us from the sense-data theorist. To appear nightly is to give or to make an appearance nightly. To seem cheerful is to give or to make a certain impression. In each case there exists a handy noun-phrase which makes the 'appear' into an 'appearance', and thus plays into the sense-data theorist's hands. 'S is appeared to bluely'. 'S is given a blue appearance'. The possibility of a noun-phrase, and the absence of existential import, are all the sense-data theorist needs; a 'blue appearance' is easily derivable from Chisholm's translation which does all the tricks that 'a blue sense-datum' ever did.

E. Chisholm's attempt at a 'perceptual condition of the observer' account of 'seeming' is similar to Anscombe's attempt at an 'intentional' account of 'seeing'; they embrace the same dangers and fail, largely, for the same reasons.

1. Chisholm speaks of 'appear' words as reporting the perceptual condition of the observer. If, however, a statement of the form 'x looks y to S' were purely such, it would presumably be identical to and interchangeable with 'S seems to see a yx'. 'Seeming' and 'seeming to see', however, are as different in this case as are 'seeing' and 'seeming to see' in Anscombe's. One can 'seem to see' a green bandicoot with one's eyes closed; but a bandicoot cannot 'look' green or any other colour to one if one has one's eyes closed.

2. It might appear, however, that there remains a way around such an obstacle for Chisholm's or any other 'perceptual condition of the observer' account of 'seeming'; we need simply conditionalize our thesis by claiming that the primary or essential sense of 'seem' is that reporting the 'perceptual condition of the observer'.

This would again face Anscombe's difficulties:

(i) 'The penny looks round to me.' (told to the optician;
I know it is round)

(ii) 'The penny looks elliptical.' (I know it is round)

(iii) 'It looks as if there is a chair there.' (I know
there is nothing there)

(iv) (the prophet calmly speaks) 'It looks as if the
mountains are burning up and the rubbish, and the rough and crooked
paths and places are made smooth and plain ...'

Our conditionalized 'condition of the observer' account
attempts to deal with (i) and (ii) on the model of (iii). (iv),

however, seems to suggest a problem. It is (iv), if any, that is the least 'literal' or 'straightforward' of the collection. The prophet's eyes are closed, he doesn't run in panic from the quakes and burning, and he speaks of things that both he and we know are not occurring. It is here, if anywhere, that we seem justified in using inverse commas of one form or another; 'It "looks" to me ...'

If even the conditionalized form of a 'condition of the observer' account were correct, however, we might expect (iv) to be the last of the selection to grow inverse commas, for it would be the 'purest' of the four.

3. It might also be noted that mental and emotional states, temperaments, and conditions - and perhaps Chisholm's 'perceptual conditions' as well - may be revealed, made obvious, demonstrated, exhibited, displayed, expressed, and often have symptoms. None of these locutions functions appropriately with 'seem's. Dropping a key, vomiting, and tearing up a letter may be symptoms, displays, or expressions of nervousness, feeling sick, or heartbreak. Writing down an incorrect acidity reading or running through the intersection without stopping are no more symptoms, displays, or expressions of the litmus paper looking blue or the light looking green than tripping over an ottoman is a symptom of its existence. Dropping a key may reveal, make obvious, exhibit, or demonstrate nervousness. But expecting a change in the weather no more reveals, makes obvious, exhibits, or demonstrates the chromium chloride looking purple than taking the wrong bus reveals, makes obvious, exhibits, or demonstrates its number being wrong.

4. Here we may also append a last critique of Chisholm's account.

In his original statement, it was the 'noncomparative' use which presented the 'primary' or 'essential' sense of 'appear' words. It was as well for the noncomparative use that he offered the analysis of an account of the 'perceptual condition of the observer'. It is, however, in statements of the purest 'experiential' type - (iii) and (iv) above, for example - that a strictly noncomparative grammatical frame (one not employing 'like', 'as if', 'as though', or 'in the same way as') is hardest or even impossible to implement. Any attempt to rephrase (iv) using an 'appear' word either introduces the object Chisholm wished to avoid ('the mountains appear to be burning up ...') or the 'like', 'as though', or 'as if' symptomatic of the comparative, and not the 'purer' noncomparative, grammatical form.

To give an adequate account of the relationship between straightforward perceptual verbs (seeing, touching, tasting, hearing, smelling) and their associated 'appear words' (looks, feels, tastes, sounds, smells) is one of the crucial tasks facing any philosophical consideration of perception. Tied to such an endeavor are the related concerns of the analysis of sensible properties (such as colour) and the distinction of the senses. The locus of problems that form the heart of philosophy of perception is as overcrowded as it is intriguing and important; the positions and refutations, arguments and counter-arguments accumulated with respect to such a topic bear witness both to its ancient vintage and its perpetual perplexity.

The following chapters form a tripartite examination of seeing and seeming, colours, and the distinction of the senses.

SECTION III

CHAPTER 8

A PERCEPTUAL PROPOSAL

I. Introduction

The question of the relationship between seeing and seeming is, perhaps, the primary problem of philosophy of perception. This chapter is almost exclusively concerned with the attempt to formulate an adequate account of 'appear' words ('look', 'taste', 'feel', 'sound', 'smell', 'seem' and 'appear') in terms of the perceptual verbs to which they are related ('see', 'taste', 'feel', 'hear', 'smell', and 'perceive').

II. The Grammar of Seeming

A. Any adequate analysis of 'seeming' must take each of three characteristic grammatical frames commonly used with 'appear' words, and a number of features peculiar to those forms, into account.

The first frame, which I shall term the 'gerund' frame (although it is properly speaking a participle), is characterized by the token "... as if ..." following the appear word, using either the indicative or subjunctive, and taking the gerund as its object. Thus the following are 'gerund' frames for all the sense-specific appear words:

- "It looks as if it is moving."
- "It looks as if it were moving."
- "It sounds as if it is moving."
- "It sounds as if it were moving."
- "It tastes as if it is mellowing."
- "It tastes as if it were mellowing."
- "It feels as if it is writhing."
- "It feels as if it were writhing."

The second grammatical frame is characterized by a noun phrase.

Two grammatical tokens are possible here; both 'like' followed directly by the noun phrase and 'as if' followed by either the subjunctive or indicative and a noun phrase:

"It looks like an orange."
 "It looks as if it is an orange."
 "It looks as if it were an orange."

 "It sounds like a bell."
 "It sounds as if it is a bell."
 "It sounds as if it were a bell."

 "It tastes like an orange."
 "It tastes as if it is an orange."
 "It tastes as if it were an orange."

 "It smells like an orange."
 "It smells as if it is an orange."
 "It smells as if it were an orange."

 "It feels like a pterodactyl."
 "It feels as if it is a pterodactyl."
 "It feels as if it were a pterodactyl."

The third and perhaps most philosophically familiar grammatical frame is that employing a simple adjective. There are, as in the case of noun phrases, two basic adjectival forms; one of which uses an adjective following immediately on the 'appear' word, the other of which employs the indicative or subjunctive and an 'as if'.

"It looks orange."
 "It looks as if it is orange."
 "It looks as if it were orange."

 "It sounds shrill."
 "It sounds as if it is shrill."
 "It sounds as if it were shrill."

 "It feels soft."
 "It feels as if it is soft."
 "It feels as if it were soft."

 "It smells acrid."
 "It smells as if it is acrid."
 "It smells as if it were acrid."

 "It tastes bitter."
 "It tastes as if it is bitter."
 "It tastes as if it were bitter."

B. The noun-phrase 'like' and purely adjectival (without an

'as if') grammatical forms may be further distinguished into three modes; 'negative', 'positive', and 'guarded'. 'That looks orange', for example, may be used in three ways. To one, the positive, it is natural to add 'and of course it is'. To another, the negative, it is natural to add 'but of course it isn't'. The 'guarded' use of 'that looks orange' is appropriate in cases where neither the 'positive' nor 'negative' clause is applicable. An optician moves what one knows to be an orange disc through a number of differently coloured lights and asks one to tell him when 'it looks orange'. When he moves it into the white light, one says 'it looks orange', and here it would be appropriate to add 'and of course it is' though inappropriate to add 'but of course it isn't'. One is presented with an 'optical illusion' apparatus, with which one is totally familiar, consisting of a stationary line drawn on transparent cellophane and an opaque background of alternating stripes. As the cellophane is drawn across the striped background, one is asked to say when the line looks bent. At a certain point one says 'it looks bent', and though it would be appropriate to add 'but of course it isn't', it would be inappropriate to add 'and of course it is'. Two passengers, lacking a timepiece, are waiting for the arrival of a certain train (the 1:03) marked with orange stripes. As they peer down the tracks, one sees a flash of orange on the horizon and says 'it looks like the 1:03'. It is in this and similar cases that 'looks' has something of a 'guarded' use; neither 'and of course it is' nor 'but of course it isn't' are acceptable additions.

A distinction should be emphasized between the 'guarded' use of appear words noted here and a proposed 'neutral' sense examined

in a previous chapter. The 'guarded' mode of appear words is appropriate where all data or information necessary for deciding whether the object is an x or is y is not yet in. It is when one is attempting to identify a sample, and has not yet performed the 'taste test', that a guarded use of 'it looks acidic' is in order. It is when one enters a concert by chance, and does not yet have a program, that a guarded 'it sounds Baroque' is appropriate. It is when one first examines a document, and has not yet checked either its date or source, that one uses a guarded form of 'it feels authentic'.

The 'guarded' use outlined for appear words is thus in some sense noncommittal as to whether the object in question is, say, fuzzy or not. It is not, however, neutral; since it is appropriate in those contexts where all evidence for a final decision is not yet in, it appears at least to carry the 'doubt' component of a 'doubt or denial' implication. To use Grice's example, there is something odd about using either a negative or guarded form of 'it looks red' when one is standing a short distance from a pillar box in broad daylight. In one case, however, it is an overtone of denial that produces the oddity; a negative use of 'it looks red' implies that it is not red. In the second case it is an overtone of doubt which is the source of the oddity; to use what we have termed a 'guarded' form of 'it looks red' is to imply that the true colour of the object is as yet undecidable, that some relevant test of its colour has yet to be performed.

The 'as if' frames of both the adjectival and noun phrase grammatical forms are similarly susceptible to such a distinction. Here, however, the distinction is more clearly marked by the variance of the indicative and subjunctive. In each case the 'as if' frame

using the subjunctive is purely negative. In each case the 'as if' frame using the indicative is purely guarded.

When something is known either to be an x or to be y, one can say 'it looks like an x' or 'it looks y', but neither 'it looks as if it were an x' nor 'it looks as if it were y'. To use the subjunctive is in some sense linguistically opposed to using the indicative; one may say 'it is as if it were' when one knows it not to be, but to use the same expression when one knows it is would be to commit, at least on some level, a linguistic indiscretion.

The 'as if' indicative exhibits a similar function. Here 'looks as if it is' is once again linguistically opposed to a simple indicative, but in a different manner. Whereas the 'as if' subjunctive is appropriate where the object is known not to be an x or not to be y, the 'as if' indicative is appropriate where all data or information relevant to a decision whether the object is an x or is y is not yet in. One may say 'it is as if it is' when there is some question whether it is or is not. But to use the same phrase when one knows either that it is or that it is not would at least be linguistically awkward.

With regard to the gerund grammatical form, however, our remarks regarding the 'as if' subjunctive and indicative must be somewhat qualified. There is no locution 'it feels writhing', and thus the 'as if' subjunctive and indicative must divide the field among themselves. The 'as if' subjunctive, as outlined above, once again carries a negative implication; 'it looks as if it were moving' is appropriate where the object is known not to be moving, but not where it is known to be moving. In the case of the gerund, however, the 'as if' indicative appears to take over all of the tasks assigned to the 'pure' (without an 'as if') forms of the noun phrase and adjectival grammatical frames. It thus has three modes; positive,

negative, and guarded. In verbal usage, the last two are often distinguished by a variance of stress; 'it looks as if it is moving' carries the implication that more information or further examination is needed for a final decision, while 'it looks as if it is moving' carries the negative implication.

In summary, we may distinguish between three 'modes' of the use of 'appear' words (negative, positive, and guarded) as well as between three grammatical frames commonly used with 'appear' words. The 'pure' (without an 'as if') forms of both the noun phrase and adjectival grammatical frames exhibit all three modes, as does the 'as if' indicative of the gerund. The 'as if' indicative in the noun phrase and adjectival forms is purely guarded, and the 'as if' subjunctive is negative throughout.

I am not at all sure whether the forms outlined above for 'looks' and its kin can completely without qualification be considered 'senses' of the terms involved. Certainly 'looks' and the like are used in these ways, and it may be enough to offer an analysis in terms of 'see' and 'hear' for 'looks' and 'sounds' when used in certain characteristic ways. Whether treated as full-blooded 'senses' or something weaker, however, I think a careful consideration of the forms noted offers the possibility of an account of the relation between 'appear' words and associated perceptual verbs which avoids the obstacles encountered in previous chapters. Perhaps at least some of the difficulties facing previously considered accounts stem from a failure to examine in detail the subtly differing ways in which 'appear' words are used.

C. Although a certain mode of the simple adjectival form and that characterized by the 'as if' subjunctive are both negative, a final distinction may be noted between them on the basis of the

adjective in question. This may be shown, very roughly, by the applicability or inapplicability of the excluded middle and the related phrase 'in some (or certain) respects'.

Something may both be Wagnerian, typically American, or artificial in some respects and not in others. Something may also look artificial or sound Wagnerian in some respects but not in others. The perspective but not the colour scheme of a sketch may be artificial, and the harmonics but not the phrasing of a piece of music may sound Wagnerian. (As a first guess, I think the following might capture something of our notion of 'in some respects': an object is or looks x in some respects just in case, for some y and z, the y but not the z of the object is or looks x. The immediate difficulties of 'parts' might be avoided by demanding that for an object to be x is for it to have a certain y or z.)

Different adjectives, however, appear to vary greatly in their susceptibility to a comparative 'in some respects'. It thus appears that something cannot be either orange or cylindrical 'in some respects'. It is the shape of the object which is cylindrical and only the shape which could be so characterized. It is the colour of something that is orange; 'colour', like 'shape' in the case of 'cylindrical', seems to have no competitors for such a position.

Something may, of course, be (or look) as if it were cylindrical in some respects but not in others. Something may equally be (or look) as if it were orange in some respects (say 'hue' or 'intensity') but not in others. But it seems implausible that something could either be or look orange or cylindrical 'in certain respects'. Something may look orange

with, say, one eye and not the other, but even here it would be awkward to use 'in some respects'. The 'hue' of an object may be as if it were orange, while its 'intensity' is otherwise, but neither its hue nor its intensity is or looks orange.

It should also be noted that some adjectives which resist a comparative 'in some respects' when used with a simple 'is' may more easily accept it when a 'looks' is used instead. Something may look old, indigestible, or metallic in certain respects and not in others, but it is at least a bit more awkward to speak of something as being old, indigestible, or metallic in some respects.

The extent to which various adjectives fragment into 'respects' in various grammatical frames is, of course, a complex topic in its own right. Despite the obvious danger of oversimplification, however, I will for present purposes use a single distinction in what follows. Those adjectives which, in a purely adjectival 'looks' frame, function in accordance with the excluded middle, and to which the phrase 'in certain respects' may not be added, I will term 'specific', and those which do not 'nonspecific' predicates.

III. Seeing and Seeming

In what follows I intend to work towards an acceptable account of 'appear' words in terms of the perceptual verbs to which they are related. I hope to do so by way of an examination of a number of unsuccessful attempts (marked A, B, and C) and their shortcomings. At this writing, the final formulation (introduced at D) seems to be adequate.

A. We may take the following as a first, and failing, attempt. I ask the reader's indulgence for the length of the list:

1. The gerund positive form, exemplified by 'it feels as

if it is writhing' where 'and of course it is' can be appended, might be rewritten:

'I can feel it writhing.'

The gerund guarded form, exemplified by 'it feels as if it is writhing' where neither 'but of course it isn't' nor 'and of course it is' may be appended, might be rewritten:

'I can feel certain features of it to be as if it is writhing.'

The gerund negative form, exemplified by either 'it feels as if it is writhing' where 'but of course it isn't' may be added or 'it feels as if it were writhing', might become:

'I can feel certain features of it to be as if it were writhing.'

2. The noun phrase positive form, exemplified by the usage of 'it looks like an orange' to which 'and of course it is' is an appropriate addition, might be rendered:

'I can see that it is an orange.'

The noun phrase negative form, exemplified by either the usage of 'it looks like an orange' to which 'but of course it isn't' is an appropriate addition or by 'it looks as if it were an orange' might be rewritten:

'I can see certain features of it to be as if it were an orange.'

3. The positive adjectival frame, such as 'it looks orange' where 'and of course it is' may be added, might be rewritten:

'I can see that it is orange.'

Finally, the adjectival negative form, exemplified by 'it looks as if it were orange' and that usage of 'it looks orange' to which the addition 'but of course it isn't' is appropriate, might become:

'I can see certain features of it to be as if it were orange.'

Unfortunately, this first account must prove inadequate. Both the noun phrase and adjectival positive forms are too weak. One

can 'see that' something is an orange by reading the grocer's label, perhaps without seeing the object at all. Similarly, one can 'see that' something is orange by watching nothing more than a meter. Nothing but the meter, however, can look orange to one if that is all one can see.

B. In order to remedy the difficulties encountered above, we might attempt to limit the procedure whereby one senses the condition of the object to a certain type of 'seeing', 'feeling', 'hearing', 'tasting', or 'smelling' 'that', such that it is only when one can see that something is orange just by looking at it that we say 'it looks orange'. ('Feeling that', 'tasting that', and 'smelling that', unlike perhaps 'seeing that' and 'hearing that', are rather odd usages. For our purposes, however, they can be taken as equivalent to something like 'can tell that ... by taste, feel, or smell'.)

On this second unsuccessful account, the positive adjectival form of 'it looks orange', where 'and of course it is' may be added, would become:

'I can see that it is orange just by looking at it.'

Our problems remain. It is at least logically possible that orange things exhibit empirically correlated features which one can see just by looking at the objects. It would be these features which, in our formulation above, would allow one to see that it is orange just by looking at it without it 'looking orange'.

C. The only way out of such a dilemma that I can see involves a further tightening of both the positive and negative adjectival frames. We might thus demand that for something to 'look orange' in the positive sense, it must be seen to be orange.

On this third failing account, the positive adjectival form

with a specific predicate (such as 'it looks orange' where 'and of course it is' can be added) would become:

'I can see it to be orange.'

We might further rewrite the corresponding negative form (where 'but of course it isn't' is appropriate) as follows:

'I can see certain features of it (on the basis of which, were it orange, I could see it to be orange) to be as if it were orange.'

Here the 'certain features' of our sketch of the negative mode are limited to those on the basis of which, were the object orange, it could be seen to be orange. The negative formulation has as well the advantage of being precisely as firm as the positive account, in that it is essentially a sense-specific subjunctive of 'seeing to be'.

The objection presented in (B), however, still holds sway. It is logically possible that something may be 'seen to be orange' (on, say, the basis of empirically correlated characteristics), and yet not 'look orange'.

D. A slight adaptation of the previous formulation, however, seems finally to avoid such an objection. I think that the following outline for the positive adjectival form when used with a specific predicate (such as 'it looks orange' where 'and of course it is' can be added) can be taken as the kernel of an adequate account:

'I can see its true colour to be orange'.

A brief examination of 'seeing ... to be', I believe, will support this final version.

Something cannot be seen to be X without being X, just as something cannot be known to be X without being X. Our formulation

in terms of 'see ... to be', therefore, reflects a necessary strength of the original 'seeing that'.

Moreover, something cannot be seen to be X without being seen. I cannot see it to be green without seeing it at all, nor see him to be digging if he is not there to be seen. Our account thus contains as well the proviso sought by our inadequate 'just by looking at it.'

Finally, and most importantly, the true colour of something cannot be seen to be a specific colour if the true colour cannot be seen.

The objection that has pursued us, rephrased in these terms, becomes:

'It is a logical possibility that something's true colour could be seen to be orange without it looking (in the positive sense) orange.'

Close consideration of 'seeing the true colour to be', I believe, shows such a statement to be contradictory. One can only see the true colour of something to be orange if one can see the true colour of it. If one can see the true colour of it, and its true colour is orange, then one must see its orange colour. I would maintain, then, that one cannot see the orange colour of something without it looking orange.

The only uncomfortable corollary to this formulation is the following: to see the true colour of something orange is to see something which looks orange and is orange. (If one sees something under a pink light such that it doesn't look orange, then one cannot see its true colour.) And that seems, at this point, a small price to pay.

E. If such an account of one use of 'it looks orange' is correct, we may go on to analyze some of the remaining grammatical forms in a similar manner. I again ask the reader's indulgence for the length of the list:

1. The gerund positive form, exemplified by 'it feels as if it is moving' where 'and of course it is' may be appended, can be rewritten:

'I can feel it moving.'

The related guarded form, exhibited by the usage of 'it feels as if it is moving' to which neither 'and of course it is' nor 'but of course it isn't' is an appropriate addition, then becomes:

'I can feel certain features of it (on the basis of which, if it is moving, I can feel it to be moving) to be as if it is moving.'

The negative form, most clearly exemplified by 'it feels as if it were moving', may be rendered:

'I can feel certain features of it (on the basis of which, were it moving, I could feel it to be moving) to be as if it were moving.'

2. The positive noun phrase form, exhibited by the usage of 'it looks like an orange' to which 'and of course it is' is an appropriate addition, becomes:

'I can see it to be an orange.'

The related negative form, using the 'as if' subjunctive or the 'like' to which 'but of course it isn't' may be appended, can be rewritten:

'I can see certain features of it (on the basis of which, were it an orange, I could see it to be an orange) to be as if

it were an orange.'

The guarded form, most clearly indicated by 'it looks as if it is an orange', becomes:

'I can see certain features of it (on the basis of which, if it is an orange, I can see it to be an orange) to be as if it is an orange.'

3. Adjectival forms, on this analysis, are at least roughly divided into those employing 'specific' and 'nonspecific' predicates on the basis of the applicability or inapplicability of the excluded middle and the phrase 'in some respects' as indicated above.

a. The positive nonspecific form, such as 'it looks artificial', where 'and of course it is' can be added, then becomes:

'I can see it to be artificial.'

The related guarded form, such as 'it looks artificial' where neither 'and of course it is' nor 'but of course it isn't' is an appropriate addition, may be rewritten:

'I can see certain features of it (on the basis of which, if it is artificial, I can see it to be artificial) to be as if it is artificial.'

And the negative nonspecific form, exemplified by 'it looks as if it were artificial' and that usage of 'it looks artificial' to which 'but of course it isn't' may be added, can be rendered:

'I can see certain features of it (on the basis of which, were it artificial, I could see it to be artificial) to be as if it were artificial.'

b. The positive specific form 'it looks orange', where 'and of course it is' can be added, becomes:

'I can see its true colour to be orange.'

The guarded specific form 'it looks orange', where neither 'and of course it is' nor 'but of course it isn't' is an appropriate addition, may be rendered:

'I can see certain features of it (on the basis of which, if its true colour is orange, I can see its true colour to be orange) to be as if its true colour is orange.'

And finally, the negative specific form 'it looks as if it were orange', or 'it looks orange' where 'but of course it isn't' may be added, can be rewritten:

'I can see certain features of it (on the basis of which, were its true colour orange, I could see its true colour to be orange) to be as if its true colour were orange.'

It is essential to note with respect to this formulation that the 'features' of the object in question need not be capable of being made explicit. In many cases, of course, they can be; it may be that the size, but not the shape, of an edifice is as if it were a monument. But with specific adjectives especially we are often at a loss to say how we know, on what basis we can tell, or in what way the thing is as if it is orange or cylindrical. That this is not a condemnation of our outline is evident in that we are equally at a loss to say how or in what way something 'looks' orange or cylindrical. We can only point, mumble, and repeat our statement.

F. It should finally be noted that there are a number of usages of 'appear' words, including the 'substantial looks' suggested in chapter five, which are not directly dealt with by the account presented. The possibility remains, however, that at least some of these could be formulated in somewhat similar terms.

I have an object in my pocket, not at present visible to anyone, which looks like an orange. The building on the corner

looks like a gaol house, despite the fact that no-one is at present looking at it. There is a log in my home town which looks like a dragon, and once again it is irrelevant whether anyone is at present looking at it.

None of these strictly fits the schema outlined for 'appear' words above, but might perhaps fit something similar. Although it thus may not be true to say of the (unseen) object in my pocket that 'I can see it to be an orange' in the sense of 'can' used above, it is perfectly legitimate to say that in some sense it can or could be seen to be an orange. Similarly, certain features of the building on the corner can be seen to be as if it were a gaol house; whether anybody is at present looking at it is as irrelevant to at least one form of 'can be seen' as it is to a 'substantial looks'.

A full account of 'can', of course, demands a complete study in its own right. It appears, however, not only that the formulation presented may be adequate for a number of 'at present' or first person usages of 'appear' words, but that it suggests at least the possibility of an account which could handle extended usages as well.

IV. Postscript

If the account proposed above is anywhere near correct, it suggests that the traditional attempt of a number of philosophical schools to account for perceptual knowledge in terms of 'appear' words may be misdirected. On such an account the 'certainty of mere impressions' (on the basis of which the tradition mentioned is often rationalized) involves something like a pun on different uses of 'looks' and rests in negative cases on nothing more than the subjunctive.

SECTION III

CHAPTER 9

COLOURS

I. Introduction

My effort in this chapter is to work towards a satisfactory account of colours. In what follows I shall draw on J. J. C. Smart's "Positive Philosophical Theory of Colour", in Philosophy and Scientific Realism, D. M. Armstrong's "Perception and Behavior" in A Materialist Theory of the Mind, Keith Campbell's "Colours", and some recent remarks of Mr. J. E. R. Squires.

I hope in a first section to show that a number of alternatives to an objective account of colour (one which treats colours simply as objective features of objects) must rely on a dispositional proviso. In a second section I intend to present what at present seem insurmountable obstacles for any dispositional account. A third and final section is devoted to the brief consideration of an objective account of colour.

II. The Dispositional Tendency

For present purposes, I will be using the term 'dispositional' to roughly cover philosophical analyses of colour terms which include an essential mention of some individual or group of individuals (or some individual or group of individuals under some particular conditions or at some particular time). The account may involve possible distinctions made by such a group, possible 'affections' of such a group, or possible physical states of such a group.

Thus a dispositional account would give an analysis of 'X is red' in some way using the form 'X would produce ...' or 'X

could be ... -ed by ...' and an essential mention of 'normal individuals', 'me under normal circumstances', 'normal individuals under normal circumstances', or the like. For our purposes here it will be irrelevant whether possible distinctions, possible 'affections', or possible physical states are introduced as the core of such a formulation.

In what follows I hope to show that each of three alternatives to an objective account of colour are forced into some form of dispositionalism.

A. Armstrong notes:

"Behaviourism, on the other hand, rushes in alarm to the opposite extreme, and says that the baby's perception is to be identified with its behaviour."

A 'pure' behaviourism, analyzing colour perception purely in terms of measurable overt behaviour, is notoriously one of the fashionable beliefs that nobody holds. Its obstacles are much too obvious; we speak of perception in cases where, due to paralysis, obstacles, or simple apathy, no moves significantly labellable as 'discriminatory behaviour' are present or possible.

The only cure I know of for such obstacles is to temper behaviourism with some type of dispositional account. Thus Armstrong quickly adds that "the Behaviourist admits there can be perception without behaviour, but says that such perception is a mere disposition to act appropriately." Smart's account of colours demands not the individual 'I could if I would' but the standard 'A normal individual could if he would' form:

"A normal percipient is one who is at least as normal in respect of any colour discrimination as is any other percipient.

Thus, if A can make discriminations with respect to colour that B cannot make, then B is not a normal percipient.

"We might say, as a first shot, that 'this is red' means roughly that a normal human percipient would not easily pick this thing out of a heap of geranium petals, though he would pick it out of a heap of lettuce leaves."

Here the notion of 'distinction' is a wholly behavioural one; to separate objects similar in all respects but colour is to make a colour distinction. Smart avoids a charge of circularity here by insisting that:

"... with ingenuity we can elucidate the complex expression 'discriminate with respect to colour' as it occurs in any context, without making use of colour words or the general word 'colour' itself ... We might simply say ... 'Sort out the wool into bundles that appear to you to differ from one another in some obvious way.' We have so arranged the experiment that the only obvious differences between the pieces of wool are colour differences, though we need not say so."

I can see no way around the obvious objections to a 'pure' behaviourism other than the employment of some type of condition with regard to (discriminatory) behaviour possible by some individual or set of individuals.

B. Both Campbell and Armstrong maintain that colour perception is a matter of interaction between objective features of material objects and subjective states of the individual percipient. Each further presents an analysis whose foundation is not ordinary colour but 'transitory' or 'seeming' colour.

Campbell writes:

"The information flow in the optic nerve pertains immediately

to the condition of the eyes, and the entirely reasonable conjecture is that one aspect of this flow is common and peculiar to the occasions on which we have impressions of turquoise. The aspect in question is that consequent upon the relative outputs, at the relevant region of the retinas, of the postulated four different sensory subsystems. Such a conjecture is reasonable not only on particular grounds but on the general ground that human perception is not a magical process. The distinctive composition of the four-fold output is a candidate for the bodily condition of S with which having impressions of crimson might be identified."

Armstrong writes:

"One possibility here is that all these different combinations of wave-lengths may be instances that fall under some general formula ... it would still be a perfectly real, even if ontologically insignificant, physical property. Now I know of no physical considerations about colour that rule out such a possibility."

Armstrong leans heavily on wave-lengths where Campbell emphasizes neurophysiology. Each account may be perfectly adequate as a scientific outline of 'transitory colours' (in Campbell's words, "a colour a surface now seems to have"). In each case, however, I can see no way in which an account of ordinary colour pure and simple (what a red object is) could be formulated on such a foundation other than by way of an essential insistence on the physical states or subjective affections of some individual or group of individuals under some conditions. Such an account, and apparently any account based on transitory colour, would again force us to a dispositional condition.

C. It appears that Smart, Armstrong, and Campbell are each forced, though for different reasons, to adopt some form of a dispositional account as outlined above. The failure of any dispositional account affects each of their analyses.

III. The Failure of the Dispositional Account

In what follows I hope to show that any dispositional account of colour must prove inadequate in that it must illicitly treat 'seeing the colour' on the model of a quite different 'seeing that'. I intend to present a sketch of such a critique in introduction, and to further consider at length a reply made to it by J. E. R. Squires.

A. Consider the following:

1. 'That is red (in colour).'
2. 'I see the (red) colour of that object.'

As outlined in section II above, a dispositional account of colour would rephrase (1) as:

- 1a. 'That (would produce ... in, could be distinguished ... by) some individual or group of individuals under ... circumstances.'

What, however, is to be done with (2)? A similar analysis would leave us with the following alternatives:

- 2a. 'I see the property of that object on the basis of which it (would produce ... in, could be distinguished ... by) some individual or group of individuals under ... circumstances.'

- 2b. 'I see the (distinguishability of that object ... by, productivity of that object of ... in) some individual or group of individuals under ... circumstances.'

- 2c. 'I see that that object (could be distinguished ... by, would be productive ... in) some individual or group of individuals

under ... circumstances.'

2d. 'I see the object to be (distinguishable ... by, productive of ... in) some individual or group of individuals under ... circumstances.'

The first alternative, in mentioning 'properties', plays directly into the hands of an objective theory of colour. It appears that such a formulation would allow the objectivist to insist simply that the properties mentioned are colours and that they could in principle be specified without any mention of an individual or group of individuals, thus permitting a non-dispositional analysis of (1) as well. (2b) is odd in that 'distinguishability' and 'productivity' are not things commonly and literally spoken of as being seen, any more than fragility or inflammability. If the second alternative means anything, it means the same as either (2c) or (2d).

I can see no other alternative than for the dispositional account to embrace (2c) or (2d). The last two formulations, however, employ not the notion of 'seeing' but 'seeing that' and 'seeing to be', respectively. Such an account must thus prove ineffective, in that something could be 'seen that' or 'seen to be' some dispositional characteristic without its colour being seen at all. I cannot see the colour of an object, however, without seeing its colour.

It should also be noted that a similar argument is possible on the basis of 'looks' locutions. A translation of 'that looks red' on the model of the dispositional translation of 'that is red' would give us:

3a. 'That looks as if it could be distinguished ...'

3b. 'That looks distinguishable ...'

3c. 'It visually appears that that could be distinguished...'

(3b) is as odd as (2b). (3a) and (3c) employ a 'looks as if' and 'visually appears that'. But something could 'look as if it could be distinguished' or 'visually appear that it could be distinguished...' without 'looking red'. Something might look as if it were red to a totally colour blind individual, just as he can see red things; but it's far from clear that anything could 'look red' to a totally colour blind individual.

B. J. E. R. Squires has produced two rather ingenious critiques of the discussion presented in (A) above. The first and simpler is that the term 'colour' has a wider application than that I have allowed it. I may be said to see the colour of the stolen car (pink) even if I have only a black and white television; a description of the colour may have flashed across the screen.

In general defence of the possibility of a 'seeing that x is ...' account of 'seeing the colour ...', perhaps non-dispositional in tone, Squires has offered a rival analysis of the failure of a mutual implication between 'seeing the (ϕ) colour of x' and 'seeing that x is ϕ '. Taking ϕ and π as basic colour terms such as green and red, and $A\phi$ and $B\phi$ as more specific categories such as bottle-green and jade-green, 'S sees that x is ϕ ' may apply either where S merely sees that x is ϕ (rather than π) or where S sees that x is $A\phi$ (rather than $B\phi$). It might thus be maintained that the failure of 'seeing that...' formulations offered is due to the ambiguity or inadequate specificity of the colour terms involved, rather than the locution itself.

As introduction to a full consideration of these proposals, I offer the following outline of elliptical uses of 'colour' and the 'intentionality' of particular modifiers in particular grammatical constructions.

1. We normally think of colours as the privilege of sight; we see colours. This is simple enough to be thought a truism; but in at least one normal usage of the term 'colour', it is simply not true. We can at least hear colours, and may be able to taste, touch, and smell them as well. We can see sounds. But far from overthrowing our normal belief that colour is the spoil of sight, such a conclusion shows an interesting and important use of 'colour'; an elliptical use.

We often use 'extended' notions of such things as colours, shapes, and sounds. This 'elliptical' use is, I think, simply a condensation of phrases such as 'announcement of the colour', 'reconstruction of the shape', and 'description of the sound'. Thus a newscaster gives the colour of the stolen car, an archaeologist draws our attention to the shape of an edifice long destroyed, and a newspaper publishes the sound of the opening bars of a new musical composition. The radio announcer broadcasts the colour of the car to the blind as well as to the sighted, the newspaper publishes a sound for the deaf as well as for those who can hear, and I can find the taste of an omelette in a cookbook even if I have no tongue. The blind can hear the colour of the stolen car, the deaf can see (or even read) the sound of the opening bars, and I can see (or read) the taste of an omelette.

All of these, I think, are elliptical uses; each is simply

a condensation of a longer phrase involving 'description of', 'report of', 'announcement of' or the like. An elliptical use of 'colour' will always allow the insertion of such a phrase; the blind hear a description of the colour of the stolen car, and I see an account of the taste of an omelette. Asked to supply such an appendage to other expressions, however, we are at a loss. I sit at my desk and see the colour of the matchbox, hear the sound of a passing lorry, and feel the pressure of the pencil against my fingertips. Here there is simply no room for an intermediate 'description of', 'account of', or 'report of' between me and what I see, hear, and feel.

The distinction between elliptical and non-elliptical uses of 'colour' becomes essential when dealing with a single sense and its normally associated detectable features. My wife is knitting, and asks me the colour of the princess' dress. If our television is black and white, and the broadcast includes a (written or encoded) description of the colour, I can truthfully say that I saw the colour of the dress. Without knowing whether the set is black and white or colour, however, my wife might not know whether I had seen the (pink) colour of the dress or simply an account of it; she would be in doubt as to whether mine was an elliptical or non-elliptical use of the term.

2. What has been widely termed the 'intentionality', or knowledge commitment, of various modifiers will also be of some note in the discussion which follows. Consider the following:

1. S sees x
2. S sees the red x
3. S sees the colour of x

4. S sees the red colour of x

5. S sees the blood-red colour of x

It has long been recognized that 'x' in (1) can be replaced by any true description of the same object without affecting the truth of (1) as a whole. It is the same to say that x in (1) is not 'intentional'; it gives no guarantee that S knows that it is an x that he sees. One can see the provost without any knowledge of elected officials or local government. One can similarly draw, call, curse, or address the provost without any such knowledge.

(2) is simply an extension of (1); the modifier 'red' is simply some true description of x, and once again there is no commitment to knowledge. I can see the red robe of the provost without knowing it to be red.

A question arises, however, with (4) and (5). Is the modifier of 'colour' here intentional or not? It should first be noted that 'colour' is in itself to some extent intentional; one can to some extent choose, match, or select the colour of a (red) object without knowing it to be red; but can one see that colour without knowing it to be red? Modifiers of 'colour' do seem intentional; to see the blood-red colour of an object seems to imply that one sees that the object is blood-red.

Unlike the case of (1) and (2), however, 'colour' may have both intentional and non-intentional modifiers. This may be shown by a consideration of the following:

Why did he run for his life?

He heard the deceptively tiger-like sound of a cat purring in his ear.

Why did he take the wrong train?

He saw the misleading colours of its destination code.

Why did he buy the forgery?

He saw the copied Manet-like colours of the painting.

In each of these cases the adequacy of the explanation offered involves the non-intentionality of modifiers of colour and sound. If he knew the sound in his ear to be deceptively tiger-like, he would not have run. If he knew the colours of the destination code to be misleading, he would not have taken the wrong train. If he knew the Manet-like colours to be copied he would not have bought the forgery.

It thus appears that modifiers of such terms as 'colour', 'sound', and 'taste' are far from necessarily intentional. The most that can be maintained is the intentionality of a certain group of modifiers which we would perhaps intuitively group together; red colours, high-pitched sounds, and rough textures. C. With the background of a dual consideration of elliptical uses of 'colour' and the intentionality of modifiers of such a term, we may return to our immediate problem.

I see no way in which a translation of 'seeing the colour of x' in terms of 'seeing that x is ...' can prove sufficient. In what follows I hope to point up some significant differences between the locutions at issue with regard to implications, modifiers, and knowledge commitment.

1. Implication

A true equivalence between 'seeing a colour' and some form of 'seeing that' would demand a parallel implication structure; the locutions in question would have to both imply and be implied by the same propositions.

(a) Confining ourselves to non-elliptical uses of colour, we may contrast the following cases:

1. S sees x
2. S sees the (red) colour of x
3. S sees that x is red (in colour)

It should be evident that both (1) and (2) carry a 'looks' implication which (3) does not. One cannot see an object without its 'looking' some way or another to one. The 'some way or another' need not be definite ("Well, it's hard to say exactly..."), but must be capable of being filled in by some description. Similarly, for one to see the (non-elliptical) colour of an object is for that object to 'look' some way to one.

(3), however, fails to exhibit a similar 'looks' implication. One can see that the stolen car is purple by reading a newspaper. One cannot see the (non-elliptical) colour of the pink car when gazing at the black and white print. To see the (non-elliptical) colour of the car, as to see the car, involves the car or its colour 'looking' some way or another. 'Seeing that' involves no such implication.

I can at present see no way in which a consideration of the ambiguity or inadequate specificity of colour terms involved can counter such an objection. The crux of the matter, far from involving a consideration of the colour term involved in 'x looks ...', involves the applicability or inapplicability of such a locution at all.

2. Modifiers

The differences indicated above with regard to implication, however, are far from the only features to doom any attempt at analyzing 'seeing the colour' in terms of 'seeing that'.

The total intentionality of modifiers in a 'see that' frame, and the limited intentionality of similar modifiers in a 'see the colour' frame once again form an obstacle in the path of any 'seeing that' translation and thus any dispositional account.

(a) Section (B) above offers us an argument of this type. Consider the following:

- i. S sees the red colour of x
- ii. S sees the deceptively shadow-like colour of the spot.
- iii. S sees that x is red
- iv. S sees that the spot is deceptively shadow-like
(in colour)

As shown in section (B), (i) and (ii) differ with respect to the intentionality of the modifier of 'colour' involved. It is at least arguable that to see the red colour of an object is to see that the object is red. It is by no means evident, however, that to see the deceptively shadow-like colour of an object involves knowing that the colour seen is deceptively shadow-like.

(iii) has been presented as a possible translation of (i). But the position and intentionality of the modifier now becomes a problem. A translation of (ii) on the model of (i) and (iii) gives us something like (iv). But (iv) illicitly involves a knowledge of the deceptive nature of the colour which (ii) does not. It thus appears that, at least with regard to certain modifiers, 'seeing that' fails to present an adequate account of 'seeing the colour'. It demands a knowledge of the facts indicated by the modifier which simply 'seeing the ... colour' does not.

It should once again be noted that such an argument is free from any reliance on the ambiguity of colour terms; it rests, rather, on the simple knowledge commitment of various modifiers with respect to the two locutions.

3. Intentionality

A third major difference between the two locutions in question is their degree of general knowledge commitment.

(a) We may once again turn to our examples:

1. S sees x

11. S sees the (red) colour of x

111. S sees that x is red (in colour)

(111) is totally intentional; to see that x is to know that x. One can no more see that one is dying without knowing that one is dying than one can see that a guest has arrived and yet be uncertain whether or not he is still on his way.

(11), however, is not so firm in its knowledge commitments. One can see the (puce) colour of an object without knowing either that the object is puce or that one truly sees its colour. That this is the case is evident from a consideration of the individual who tends to take an object to be red, but is not quite sure whether or not it is red. If the object is red, it may be true to say that he sees the (red) colour of the object. His own reaction, however, may take the form of a 'looks': "Well, it looked red, but I wasn't quite sure whether the hallucinatory drug had yet taken effect or not." He may thus be said to see the (red) colour of x, although it would be extremely misleading to say that he saw that the object in question was red. He may at most be said to see that it looked red.

Once again I can see no way in which a consideration of

the ambiguity of colour terms weakens such an argument. The difference indicated in the above examples, far from being one of the specificity of detectable qualities mentioned, seems to lie firmly in the difference between the strong knowledge commitments of a 'seeing that' grammatical frame and the slightly but significantly weaker commitments of 'seeing a colour'.

(b) We may finally point out a fourth obstacle to any attempt at establishing an equivalence between 'seeing a colour' and some form of 'seeing that'. This is the case of the colour-blind individual. There seem to be but two ways for a defender of a 'see that' equivalence to treat such a case. The first is to insist that the colour-blind do see colours, thus attacking the apparent privilege of the sighted to be truly said to 'see colours'. The second, suggested by Squires and in line with an earlier comment, is to treat the distinction between the colour-blind and the sighted as a distinction between the specificity of colours detectable.

The first course seems adequately closed by an insistence that 'colour' be used in a non-elliptical sense. The colour-blind can see the colour of the stolen car by reading a newspaper account or seeing a broadcast description. Each of these, however, is an elliptical use of 'colour'; each allows them to see a description or an account of the colour. It is by no means evident that the colour-blind may be said to see colours in a non-elliptical sense any more than I can be said to hear colours in a non-elliptical sense.

The alternative, however, does at first seem promising. It may be said, in defence of a 'see that' translation, that the colour-blind simply lack the ability to see that x where x is

used as specifically as the colour-sighted may use it. Thus a tulip labelled 'yellow' may be seen to be magnolia yellow by the colour-sighted. The colour-blind, however, are able to give no more information than that available on the card.

The fact remains, however, that human colour sensitivity is limited both to a specific range and to a degree of specificity within that range. A mad colour-blind scientist might thus make a classification of all colour differences distinguishable to a normal human percipient. He might further code them in a specific way, and print the colour code for each object on every object in the world. By secretly initiating the colour-blind into his mysteries, he may thus enable them to make all distinctions possible for normal percipients. (It should be noted that such an example does not commit us to a view of atomic colour 'simples'; the coded colours represent no more than distinguishable differences.)

A simple 'seeing that' account would now force us to say that the colour-blind had regained their colour vision. It is not evident, however, that we need say anything of the kind.

Specificity, therefore, is not enough. The only way of improving such a demand, however, would appear to be some way of denying the possibility of label-reading cases. But this would seem to introduce some condition such that one 'sees that' without an attachable 'by seeing ... (the label, the molecular structure, some empirically correlated features, etc.).' This in turn seems subject to the following dilemma; we have either an individual who does not claim to (or claims not to) see by anything, in which case we must allow prophets to literally see future

events, or an individual who does not in fact see by anything. The last condition, however, quickly saddles us with the difficulties of a causal account as discussed in chapter four.

D. I see no way in which a 'seeing that' can adequately mirror a 'seeing the colour'. Problems of implication, modifiers, and intentionality seem to cluster as significant obstacles to any such attempt. As any dispositional account must apparently take recourse to a 'seeing that', I can at present see no way in which any such account can prove adequate.

IV. The Objective Account

In the light of section III, it appears that no dispositional account of colours can prove adequate. The only alternative I know of is some analysis of colours as objective features of material objects.

A. Campbell presents three related objections to such an account:

"...the concept of transitory colour is epistemologically fundamental. We can define standing blue (= transitory blue when in standard illumination) and blue-in-A (= transitory blue when in A) in terms of transitory blue. A transitory colour is a colour a surface now seems to have."

"The adjectives of colour - red, green, grey, puce, turquoise, etc. - are terms too simple to give expression to family resemblances. Things are not alike in hue in virtue of a series of overlapping and criss-crossing similarities among them. To be alike in hue, things need but have a single likeness. So when the same colour term is rightly used of various things, that term ascribes to all those things a single constant feature.

"Further, the colour terms are one-place predicates ... they apply to objects taken singly."

Campbell goes on to incorporate the last two points into his 'Axioms of Unity'; "The Axioms of Unity place this necessary condition on any such identification: there must be one physical quality common and peculiar to objects which are turquoise."

After a perusal of likely scientific candidates for such a 'unique quality', and their discredit as uniquely determinant of 'transitory colour', Campbell concludes:

"Attempts to identify colours with complex observer-independent qualities of their bearers failed because there is no such common peculiarity distinctive of crimson, turquoise, or grey things."

B. In response to Campbell's first point, I would simply deny that 'transitory blue', which Campbell constructs on the basis of 'a surface which now seems to be blue', is "epistemologically fundamental" in any real sense. The work of the previous chapter, though far from conclusive, seems to indicate a possibility that 'seems' locutions, and thus any philosophical constructions dependent upon them, may be open to analysis in terms of straightforward perceptual verbs. Campbell's 'transitory colour' may thus involve a quite ordinary notion of colour, rather than the other way around.

Unfortunately, Campbell's account remains one of 'transitory colour'. If, as suggested in the preceding chapter, 'looks' locutions form something like the subjunctive with relation to 'be' locutions, then Campbell's conclusions might be quite correct and yet not indicate that colour terms pure and simple do not designate a unique and simple property of material objects. In one sense, moreover, we might simply insist that they do: they designate colour. It seems likely, however, that there are no

'unique and simple properties' associated with colour and of the type Campbell is looking for: molecular structure, light reflection, or the like. But in these terms, it remains possible to treat colour as a matter of a number of 'overlapping, interconnected', but nonetheless objective features of material objects.

I see no way in which such a thesis could be effectively rebutted. Campbell's 'Axioms of Unity' present an impression, but are far from a conclusive argument. "Peculiar" is indeed a complicated notion, as is "entertaining", "riotous", and "obscure". Each of these, however, are one-place predicates and apply to objects taken singly. Some are dispositional, but others are not. There is nothing on the face of a term which proves it 'too simple' for an account which involves 'overlapping and criss-crossing similarities'.

Campbell speaks of 'having an Australian accent' in analogy. He's right, of course; but such a move effectively gives the game away. An Australian accent is no more mysterious than colours, but it does involve either a complex notion of objective features (well, his 'h's are silent and he flats his 'a's) or a notion of complex objective features.

C. In conclusion, I can at present see no objection to considering colour terms as a vocabulary of objective features of material objects. The accounts offered by Smart, Armstrong, and Campbell seem doomed to a dispositional condition and hence significant difficulties, and an objective view seems to square with our ordinary notion of 'this is red'. As long as we allow that the objective features in question, when described in 'scientific' terms, may be linked by no more than a simple disjunction such

as 'one or more', and admit that they are to be ostensibly indicated, I can see no way in which a scientific account of the world can do more than find colour uninteresting; an apathy it developed long ago.

SECTION III

CHAPTER 10

DISTINGUISHING THE SENSES

I. Introduction

H. P. Grice's "Some Remarks About the Senses" and J. W. Roxbee Cox's "Distinguishing the Senses" present perhaps the foremost discussions to date of the problem of defining and distinguishing the various senses. This chapter will rely heavily on their work.

In what follows I hope to argue that some notion of 'direct perception' is necessary for an adequate distinction between the senses, and to consider in rough outline the type of grammatical frame that might serve the purposes of such a notion.

II. The Problem

A. How are the senses to be defined and distinguished? Grice lists four basic proposals:

"I. It might be suggested that the senses are to be distinguished by the differing features that we become aware of by means of them: that is to say, seeing might be characterized as perceiving (or seeming to perceive) things as having certain colours, shapes, and sizes; hearing as perceiving things (or better, in this case, events) as having certain degrees of loudness, certain determinates of pitch, certain tone-qualities; and so on for the other senses.

"II. It might be suggested that two senses, for example, seeing and smelling, are to be distinguished by the special introspectible character of the experiences of seeing and smelling; that is, disregarding the differences between the characteristics we learn about by sight and smell, we are entitled to say that

seeing is itself different in character from smelling.

"III. Our attention might be drawn to the differing general features of the external physical conditions on which the various modes of perceiving depend, to differences in the 'stimuli' connected with different senses: the sense of touch is activated by contact, sight by light rays, hearing by sound waves, and so on.

"IV. Reference might be made to the internal mechanisms associated with the various senses - the character of the sense-organs, and their mode of connection with the brain."

To these Cox adds what he terms a 'key features account':

V. "At this point however one might naturally single out colour, light and shade from the other visible properties, and hold that (a) if one's perception involves directly perceiving that a thing has a certain colour or light property, then one sees that thing; and (b) if one's perception that a thing has a certain other property involves directly perceiving that it has some colour or light property, then one sees that it has that other property. In the case of sight, having some colour property may appropriately be called a 'key feature' of what is perceived, accounting also for our seeing that the thing has other properties, such as roundness, smoothness, etc."

B. The proposals above may be divided into two major groups.

I and V are variations on a 'features detected' account. III and IV, and possibly II as well, are 'mode of detection' accounts; III and IV are distinctly biological in this respect.

1. Any 'mode of detection' account seems to face immediate difficulties. Our technology (or our image of our technology) is such that information concerning any feature of an object can be expressed in any medium, and geared to produce any affection of

any biological mechanism. The sounds of an orchestra may be converted into light patterns, light waves, or retinal impulses. The colour of an object may be 'coded' in terms of sound waves or vibrations in the human ear.

Thus any 'mode of detection' account would allow that since we can detect property x by visual mechanism y we can 'see' x; but there is nothing in such an account that forbids x being a sound.

2. No 'features detected' account, however, can prove adequate on its own either. Once again, the sounds of a band may be converted into light patterns. The colour of an object may be 'coded' in terms of audible signals.

In terms of I. above, things may thus be perceived as being red without being seen. In terms of V., and leaving 'direct perception' aside for the moment, one's perception that a thing is red may involve nothing more than audible impressions. But one can only see, and cannot hear, colours.

3. No combination of the two types of account presented, however, seems any more able to remedy the obstacles encountered. One may detect property x of an object via mechanism y, x may be colour and the mechanism may be light waves, without seeing either the object or its colour. We need only think of coloured objects passing in front of a television camera which "encodes" 'red' as Mickey Mouse on the screen. A knowledgeable viewer may detect that the object is red, via any chosen mechanism, without seeing either the object or its colour.

C. The only way I can see out of the difficulties presented is via the tricky notion of 'direct perception'.

III. Towards a Grammatical Formulation of 'Direct Perception'

A. I know of three possible ways of defining the notion of 'direct perception'. The first is causal; the 'direct' of 'direct perception' is taken as designating some type of causal relationship. The second is that of Cox. The third is the search for an adequate grammatical equivalence.

1. The 'causal' approach is perhaps best exemplified by the work of Grice and A. R. White's "The Causal Theory of Perception". Chapter four, however, appears to point up a number of difficulties facing such a position.

2. Cox's formulation is as follows:

"Case 3. I now wish to distinguish a third case, where a man's answer to the question 'How did you tell that it is...' is that (a) he did not tell by anything ... and further that (b) he could not pick out any significant features in order, e.g., to explain to someone else how he recognized such a state of affairs. His perception that the thing has a certain property or feature, or that a certain state of affairs exists, does not involve his perceiving that it has other properties which he would recognize as indicating the first property, feature, or state of affairs. It is this that I call a case of direct perception."

Cox's is an odd formulation. As it stands, it seems to include such things as women's intuition, ESP, premonition, and prophecy; in each case it is often true that the individual is at a loss to say how he knows.

This weakness allows us a firm counter-example to Cox's total formulation. A prophet, telling (truthfully) of a future event, speaks of the red robe of Christ in His second coming. This may satisfy Cox's 'direct perception'; our prophet may truthfully say that he did not tell the colour by anything, and further could

not pick out any significant features in order to explain to someone else how he recognized such a state of affairs. Such a case fits the 'key features' account by satisfying (a); our prophet 'directly perceives' that a thing has a certain light property (its red colour). It nonetheless remains an open question, not only whether the prophet sees the robe or its colour, but whether he perceives it at all. The 'future' orientation of the exemplary event is of course inessential; we might have chosen a medium and a contemporary but removed event in the place of the prophet and the second coming of Christ.

I see no way of tightening Cox's formulation except by demanding, not that the individual cannot tell us that he knows by anything, but that in fact he does not know by anything. But this seems to force us back into the causal account and its accompanying difficulties.

B. A promising alternative here, I think, is to find a grammatical form which does all that we want 'directly perceive' to do.

The notion of 'direct perception', though far from clear, has at least fairly clearly been contrasted with 'perceiving that'. It is the possibility of seeing that x is y without seeing either x or y that has doomed our formulations above. The 'features detected' account fails in that one can detect that x is y by sight, touch, smell or taste. The 'medium of detection' account fails in that one can detect that x is y via any medium proposed.

'Direct perception' seems to offer a way out here; but neither a causal nor Coxian account of such a notion seems satisfactory. I suggest that an alternative grammatical form may be able to do all that 'direct perception' can, without forcing upon us the problems presented by the definitions above.

C. The following version of a 'features detected' view seems a good first step.

Following Cox, we may isolate 'key features' for each sense. That only one feature is allowable is demonstrable using Grice's point that any multiple feature account must be subject to a charge of arbitrary grouping. For sight, then, the 'key feature' is colour. For hearing, the 'key feature' is sound. We may further demand that the key feature in each case be used non-elliptically; our concern is with those uses of 'colour', 'sound', and the like which stand alone, rather than with those which are condensations of phrases such as 'description of the colour' and 'account of the sound'.

We may also draw, at least in rough outline, a distinction between 'predicate classes' and their 'members'. Allowing for some flexibility with regard to related grammatical forms ('rust', 'rusty', 'rustiness', etc.), a predicate x can be said to be a member of predicate class y just in case x is a particular y or x is a particular type of y and for any object to be x is for that object to be or to have a y . The intuitive distinction at issue is perhaps clearer from examples. All specific colour terms ('red', 'green', 'blue', etc.) are members of the predicate class 'colour', all specific shape terms ('round', 'square', 'oblong', etc.) are members of the predicate class 'shape', and all specific sound terms ('shrill', 'mellow', 'resonant', etc.) are members of the predicate class 'sound'. 'Rough' is a member of the predicate class 'texture' in that roughness is a particular texture and for an object to be rough is for that object to have a certain texture. 'Rusty' is a member of the predicate class 'corrosion' in that rust is a particular type of corrosion and for an object to be rusty

is for that object to be corroded. 'Wearing a coat and tie' is a member of the predicate class 'being dressed' in that a coat and tie are a particular type of dress and to wear a coat and tie is to be dressed.

We may now propose that (a) if one's sensing involves sensing the colour of a material object to be of a certain description, then one sees that material object, and (b) if one's sensing the (predicate class) of a material object to be (member of the above predicate class) involves sensing the colour of that object to be of a certain description, then one's sensing is sight.

Whenever a 'key feature' appears in a predicate class position, the sense involved is defined. Thus whenever the 'key feature' of colour appears in a predicate class position, the sense involved is sight. In addition, whenever a 'key feature' appears in a predicate class position, the formulation (which may be extended indefinitely) comes to an end. Thus to see a round object to be round becomes:

'I sense the shape of x to be round by sensing the colour of x to be (some description).'

To feel the shape of x to be round becomes:

'I sense the shape of x to be round by sensing the texture (or whatever key feature is isolated for touch) to be (some description).'

Furthermore, one cannot see sounds in that the predicate class 'sound' would bring the formulation to an end, forbidding an appended '...by sensing its colour to be...'

D. Three points should be noted concerning the formulation above:

1. By incorporating the 'key features' account, it avoids

the charge of an arbitrary grouping of 'features detected'.

2. By using the locution 'sense the (predicate class) to be (member of the predicate class)' it fulfills the purposes of 'direct perception' by avoiding a simple 'sensing that'. One can 'sense that x is coloured' without sensing the colour of x. One cannot 'sense the colour of x to be ...' without sensing the colour of x. One can 'sense that x is red' without x 'looking' red; but one can neither sense nor see the colour of x to be red without sensing its red colour, and if one can see its red colour it must at least look red.

It is this feature of the account suggested that forms the prime advantage over Cox's formulation, in preserving the effectiveness but avoiding the complications of a non-grammatical formulation of 'direct perception'.

3. Grice's final problem concerning the 'direct perception' of spatial properties by both sight and touch is solved through a distinction between 'sensing the shape of x to be round by sensing its colour to be ...' and 'sensing the shape of x to be round by sensing its texture to be ...'.

4. A final difficulty, however, should also be noted. Publicity has, from time to time, been given to cases of 'tactile colour detection'; individuals are reported to be capable of distinguishing colours with their fingertips. If such accounts are true, it would appear that the account given above would force us to say that the individuals in question see with their fingertips.

There is, however, a middle ground. We are much more comfortable, at least at present, with the notion that isolated individuals or visitors from strange planets may 'see' with organs other than their eyes than with the idea that they 'literally' see with those organs.

A preference for inverted commas may be a function of a number of factors, perhaps including a notion of 'causal novelty'. But a full treatment of why terms grow inverted commas, and thus a full treatment of these special cases, lies beyond the scope of the present study.

Many people distinctly removed from the intrigues of professional philosophy are tempted to ask whether it is not possible that others, though confronted with the same object or event and manifesting the same behaviour as themselves, might not have qualitatively different 'sensations', or 'experiences', than they do. My concern in the final two chapters is to examine this question in the light of the preceding work and two recent articles on 'sensation'.

SECTION IV

CHAPTER 11 THE MYSTERIOUS CASE OF THE PRIVATE PIGMENTS

I. Introduction

Daniel M. Taylor's "The Incommunicability of Content" presents possibly the most thorough examination to date of 'colour experience', difference, and identity. This chapter is almost entirely concerned with his work and the problems it presents.

Taylor frames the initial question as follows:

"When two people with normal colour vision are looking at a green wall are their colour experiences the same?"

He goes on to present two views about it, which he terms 'The Incommunicability of Content Theory' and 'The Necessary Truth Theory'. The former, which he attempts to defend, is represented as follows:

"... the answer to the question may be affirmative or negative, but ... it is in fact impossible to know the answer. In a sense each possessor of colour experiences knows what colour they are, but none can communicate to others what he knows. A distinction may be drawn between content and structure of experience. The actual colours experienced by a person are the content of his experiences. The number and discriminability of the colour experiences he has are aspects of the structure of colour experience. Content is incommunicable. Structure is communicable by discriminatory behavior."

The 'Necessary Truth Theory' maintains "...that the question is not an empirical question. An affirmative answer is logically necessary; a negative answer involves a contradiction."

I hope to show in a first section that Taylor's use of

contradiction as an indication of 'incommunicable content' leads to difficulty. Two later sections are dedicated to a brief critique of the 'Necessary Truth Theory' and to a consideration of the problem as a confusion of grammatical form.

II. Contradiction and Communicability

A. Taylor notes that both the 'Necessary Truth Theory' and the 'Incommunicability of Content Theory' rely on the fact that a contradiction is produced in attempting to set the problem in specific colour terms:

"Suppose two people A and B are looking at the same green wall, and that A asks B whether it could be that while he, A, experiences green when looking at the wall B experiences red. If B says 'yes' A may go on to ask whether B means that he has the same kind of colour experience looking at this wall as in looking at blood, pillar boxes and stop signs. Should B say 'yes' again A will know that there is an abnormality in B's vision, either in general or on this occasion. But if B says 'no' then A will be confused and puzzled. B may attempt to dispel the puzzlement by saying:

"The experience I have looking at this wall is the same as the experience you have looking at blood; the wall looks to me as blood looks to you."

"But how do you know what colour blood looks to me?" says A.

"You told me" says B. "Red."

"But red is the name I give, along with everybody else, to things that have the same colour as blood, that is all; either the wall and blood look alike to you or they do not. If they do you are colour blind. If they do not, then either you use colour words

as other people do or we shall fail to understand you. You claim on the one hand to have a red experience, one like that produced by looking at blood for example, yet you say it is not like the experience you have when looking at blood."

From such a case Taylor argues, not that there cannot be x because a statement to the effect that x is contradictory, but that the 'content' of x is incommunicable. He thus maintains form 2 of an 'Incommunicability of Content Theory', to the effect that:

"(1) It is possible that there are differences in the colour experience of different people.

(2) To say that there is this or that specific difference between this or that person's colour experience and another's, using colour words to say what it is, leads to contradiction."

B. It should first be noted that the odd argumentative use of contradiction characteristic of the 'Incommunicability of Content' theory leads us into more dangerous straits than are at first apparent. On the structure of Taylor's 'Fred' case (to be examined in greater depth at a later stage), we may construct the following:

1. Fred awakes one morning and says, "All sedimentary rock is now igneous and all igneous rock is now sedimentary". We shall soon point out that this is not so, and Fred will have to change to "That igneous rock looks sedimentary", etc.

2. Fred awakes one morning and says, "All rusty things are now shiny and all shiny things rusty."

3. Fred awakes one morning and says, "All subterranean passages are now above ground and all above ground passages are now subterranean."

4. Fred awakes one morning and says, "All Englishmen now speak

with an Australian accent and all Australians now speak with an English accent."

In each of these cases the structure of Taylor's argument is duplicated. In each case as well a similar contradiction follows from any attempt to characterize the change in specific terms. If we assume in the case of Taylor's original Fred that 'cold' and 'warm' as applied to colours suffered the same overnight reversal as 'blue' and 'red', we can equally well assume that 'porous', 'layered', 'corroded', 'up' and 'down' have assumed a reversal along with 'igneous', 'sedimentary', and the like.

Following Taylor further, however, we would have to insist on the basis of the contradiction argument that 'subterranean content', 'above ground content', 'rusty content', 'shiny content', 'Australian accent content', 'English accent content', 'sedimentary content', and 'igneous content' are as incommunicable as 'colour content'.

Other questions, however, remain. The incommunicability of married bachelorhood content and square circularity content seem, on the model of an argument from contradiction, equally unavoidable. If every dichotomy or opposition breeds 'incommunicable contents', how are we to avoid an infinite proliferation of nestled 'contents'? For surely Fred might wake up one morning and say, "All incommunicable content is now communicable and all communicable content is now incommunicable". Are we not thus forced to admit the existence of the incommunicable content of incommunicable content?

C. It should also be noted, however, that the incommunicability of content argument fails on a simpler ground than the infinite breeding of content-monsters. If differences of colour content were

truly incommunicable, then identity or sameness of colour content would be equally incommunicable. If it is because of the 'incommunicability of colour content difference' that we cannot tell if and when A and B have 'different colour experiences', then it is equally because of 'the incommunicability of colour content sameness' that we cannot tell if and when A and B have 'identical colour experiences'.

Were contradiction as bound to incommunicability as Taylor suggests, however, then statements of colour content sameness should be as contradictory as statements of colour content difference. This, however, is patently not the case. Taylor's introductory example flows without a hitch if we imagine A to ask B if it is possible that while he, A, experiences green when looking at the wall, B experiences green as well.

III. Specificity and Necessary Truth

A. Taylor's strongest argument against the 'Necessary Truth Theory' is the case of Fred:

"Suppose that one morning someone we know, call him Fred, wakes up, looks around him and says, 'Good grief, the sky is yellow, the grass is red, pillar boxes are green and lemons blue.' We shall soon point out that this is not so, and Fred will have to change to 'The sky looks yellow etc.' We of course understand that something has happened; his colour experience has changed."

Taylor argues on the basis of the Fred case that "...if there can be changes in one person, then there can be differences between people ... If this is true, then the proposition that everyone's colour experience is the same is falsifiable and hence of course not a necessary truth."

B. It is a statement of difference which employs specific colour terms in both the case of Fred and Taylor's initial A and B that

leads to contradiction. A simple statement of difference does not involve us in such a confusion. If the 'Necessary Truth Theory' as Taylor presents it were correct, however, a simple statement of difference, not employing specific colour terms, should be equally contradictory; for such a statement is the true negation of that which the 'Necessary Truth Theory' maintains is analytic. This point may be pursued with the use of a simple example.

1. X and Y are both colour blind with respect to red and green. Neither can distinguish red objects from green ones. Is it not possible, however, that the class of red and green objects looks red to X and green to Y?

(What colour do the class of red and green objects look to an individual colour blind with respect to green and red? It is interesting to note here that the answer commonly given is 'just shades of grey'. If that is true and more than a cliché, then the individual colour blind with respect to green and red is triply colour blind; he is unable to distinguish between green, red, and at least some shades of grey.)

This appears to be similar in its 'undecidability' to the cases presented by Taylor, and points up some of the obstacles for the Necessary Truth Theorist indicated above. Both of the final hypotheses -- that the class of red and green objects looks red to X, and that the class of red and green objects looks green to Y -- result in the type of contradiction which is by now familiar. The contrary hypotheses -- that the class of red and green objects looks green to X, and that the class of red and green objects looks red to Y -- similarly result in contradiction. It would thus appear that the Necessary Truth Theorist as portrayed by Taylor must say that a statement of specific difference is contradictory and thus

that a statement of specific sameness must be necessarily true.

This, however, is patently inadequate. For it seems to imply that either the class of red and green objects looks red to both X and Y, or that the class of red and green objects looks green to both X and Y. Here the Necessary Truth Theorist is presented with two major obstacles. First of all, how is he to decide which formulation of specific sameness is correct? Secondly, and most importantly, both these statements of sameness, using specific colour terms, result in the same contradiction as before.

It thus appears that the Necessary Truth Theory presents, at least, an over-simplification of the problems involved. It significantly neglects the important role of specific colour terms.

IV. The Butler Did It

A. I shall be concerned, in what follows, with the following three cases:

1. X and Y are both colour blind. Neither can distinguish red things from green things.

2. Fred awakes one morning, looks around him and says, "Good grief, the sky is yellow, the grass is red, pillar boxes are green and lemons blue." We shall soon point out that this is not so, and Fred will have to change to "The sky looks yellow etc." At some later point Fred says "By 'green' I now mean what I used to mean by 'red'. Green things now look to me as red things used to."

3. A and B are looking, under the same circumstances, at the same coloured object.

Each of these cases is associated with a problematic question. In the first case we are tempted to ask whether the class of red and green objects looks red to both X and Y, green to both X and

Y, or red to one and green to the other. In the second case we want to ask Fred how the class of green objects yesterday and red objects today look. In the third case we want to ask whether the same object might not, in some sense, look one colour (perhaps red) to A and another (perhaps green) to B.

In what follows I will concentrate on the first case and its associated query. Cases (2) and (3) are in fact closely related to it. 'Green yesterday' and 'red today' do much the same work in the second problem that 'green' and 'red' do in the first and third. Fred at t_1 and Fred at t_2 are similarly parallel to X and Y on the one hand and A and B on the other. A proper treatment of the first case should give us a clue to the others as well.

B. Is it not possible, in the first case, that the class of red and green things look red to X and green to Y?

1. Such a question conjures up an image of a world of private pigments - 'experiential colours' - which are unfortunately unavailable (at least at present) for public view.

In the first case we imagine X and Y to have private paint boxes. We want simply to know if all X's green objects are painted red with the private pigments, or all X's red objects are painted green. We think of the alternative pictures of the world painted in such private places as something like this:



Normal.



Colour-Blind 1



Colour-Blind 2

Such an image of colour blindness is, of course, unviable. If the private pigments are like other objects and only, let us say, contingently private, then such an hypothesis is absurd. At our eventual exhibition of private paintings, possible due to

the advance of technology and the Grace of God, we would have a very odd situation. The colour-blind 1 and colour-blind 2 individuals would embrace each other as brothers; their two paintings would seem the same to them. They might even go so far as to compare all three paintings and offer them as final proof that they were never colour-blind at all.

It might be claimed, however, that at least we could tell. But how could we determine, if the two colour blind individuals could not distinguish their paintings, whether they used the proper private pigment to illustrate what they saw?

2. The alternative is to suppose little normal-sighted individuals inside all the colour blind; or, what comes to the same thing, to imagine not only private but truly magical pigments. We could thus imagine that each normal sighted midget inside each colour blind individual has a full set of private pigments, but that he may either never have found occasion to use his 'red' or never have found occasion to use his 'green'. As before, we can further imagine the public private exhibition.

Here, however, we would get an infinite regression, for our world is only removed one step further. We would only know that, say, X sees his 'red' pigment, red real objects, and green real objects as alike. But then might not his 'mind's eye' be colour blind; for further up we might find a second-order midget to represent all three objects in the following manner:



Either of the pictures we form of the alternative answers to our first case involve perplexing complications. To imagine private pigments alone is not enough, and to imagine magical private pigments forces us into an infinite regression of higher order colour blind midgets.

C. It should be remembered here as well that two ways we are tempted to describe the alternatives presented in our queries lead immediately to difficulties.

1. Is it not possible that when X sees red and green objects he sees the colour red, and that when Y sees red and green objects he sees the colour green?

2. Is it not possible that when X sees red and green objects they both look red to him, and when Y sees red and green objects they both look green to him?

The first manner of presentation is obviously inconsistent. Were X to truly see the colour red when looking at an object, that object must be red. The question indicates, however, that such an object might be green. I don't think an object can be both red and green; and even if it were the question would go on to indicate that the (green) object in question is not both red and green in that it is simply not red. The same is true, with a reversal of colour terms, of the alternative of Y.

The second formulation gets us into similar difficulties. As Taylor notes, we end up with the assertion that the objects in question both look and don't look like, say, pillar boxes and blood.

D. Each of the three cases under consideration struggles to present a genuine, non-contradictory, and undecidable alternative. We are further tempted to find a way of stating the questions which would involve specific colour terms. It has been shown in the sections above, however, that both the images we are tempted to conjure up of such an alternative, and the ways we are tempted to describe it, get us quickly into trouble.

There is, I think, a common grammatical construction which reflects the distinctions at issue without inconsistency and which may easily employ colour terms. I suggest that it may be in such a frame that the questions we are tempted to ask are to be properly formulated.

1. The locution in question is that, not of a simple 'looks', but of the significantly different 'looks as if'. Formulated in such a manner, our question with regard to the first case above becomes: Do the class of red and green objects look as if they were red to both X and Y, as if they were green to both X and Y, or as if they were red to one and as if they were green to the other? Our questions with regard to the second and third cases similarly become: Do the class of red objects at time t_1 , and green objects at time t_2 , look as if they were red or as if they were green? Might not the same object look as if it were, say, red to A and look as if it were, say, green to B?

2. A 'looks as if' locution thus seems an adequate frame for formulating the problematic questions we are tempted to ask. Such a formulation is, I think, free from the problems of both 'looks' and 'is' phrasing.

It should be noted, however, that such a formulation also shows the problem to be vacuous; it is, in the end, a pseudo-question, and the alternatives it appears to present are pseudo-alternatives.

For all red things to look green would be quite different than for all green things to look red. For all red things to look as if they were green, however, would imply and be equivalent to all green things looking as if they were red, just as for all sedimentary things to be as if or to look as if they were igneous would be equivalent to all igneous things being as if or looking

as if they were sedimentary. The crux of the matter here is not that there would be no 'describable difference', in Taylor's terms, but that there would be no difference at all. Such is the nature of 'as if'.

To one incapable of distinguishing X's from Y's, furthermore, there is not only no difference between 'seeming as if it were X' and 'seeming as if it were Y', but it is doubtful whether the locution applies at all.

It might be objected here, however, that it would be quite different for me to wake up tomorrow and have all red things look as if they were green than to wake up tomorrow and have all green things look as if they were red. But in such a case the differences are adequately reflected by the proposed grammatical form; for the two alternatives here would be for red and green things to look tomorrow as red things, or as green things, look today.

E. In conclusion, then, neither Taylor's 'Necessary Truth Theory' nor 'Incommunicability of Content Theory' seems capable of proving adequate. The question at issue may, I think, be properly phrased in terms of 'looks as if' without the accompanying difficulties of such theories. It also becomes obvious in such a formulation, however, that the question at issue is a vacuous one; its apparent alternatives and the paradoxes they engender are products of a confusion between 'looks' and 'looks as if'. It may at least be suggested, then, that the problems involved are the result of a grammatical misunderstanding.

I. Introduction

My attempt in what follows will be to expand and elaborate, with regard to 'experiences' and 'sensations' in general, the arguments and suggestions presented in chapter eleven. In this endeavor I owe a significant debt to B. A. Farrell's "Experience".

II. The Ordinary Usage

Both 'sensation' and 'experience' have a number of both common and unproblematic usages.

A. The first and least important of these are a near synonym of familiarity in the case of 'experience' and something like a contraction of 'a sensational occurrence' in the case of 'sensation'. One has a wide experience with the fair sex or a limited experience of the operation of hydraulic lifts. The modifiers allowable in association with such a usage are descriptive not of its character but its extent. For the party to have been a sensation is simply for the party to have been a sensational and successful event. Once again the allowable modifiers of such a term are only limitedly descriptive; the party may have been a 'complete sensation', an 'unqualified sensation', or an 'absolute sensation', but to claim that it was an 'enjoyable sensation' would be redundant and to term it a 'boring sensation' would be somehow improper.

B. It is other 'senses' of both 'experience' and 'sensation' that are of importance here.

A wild party may be an enjoyable experience, a car accident may be a terrifying experience, and getting married may be an uplifting experience. In each of these cases, the term 'experience' plays something like the role of a place-holder. For a wild party

to be an enjoyable experience is simply for the wild party to be enjoyable. For the car accident to be a terrifying experience is simply for the car accident to be terrifying. For the occasion of marriage to be an uplifting experience is simply for the occasion of marriage to be uplifting. Here the term 'experience' simply allows our modifiers an immediate noun; just as 'event' allows us to say either 'the circus coming to town was an exciting event for a child of my age' or 'the circus coming to town was exciting for a child of my age.' It must be noted, of course, that not just any modifier is allowable in the transposition from an 'X is ____' to an 'X is a ____ experience' grammatical frame. For the Fourth of July Celebration to be official is not for it to be an official experience.

C. Where 'experience' has one such function, however, the term 'sensation' has two.

1. 'Sensation' may first of all take on a role quite similar to the pronoun-function of 'experience'. It is, however, a bit more specific. A wild party is not a thrilling sensation, though sitting on a water bed for the first time may well be. A car accident is not a terrifying sensation, though to discover blood on one's forehead is. Getting married is not an exciting sensation, though to kiss one's bride for the first time may be.

Here also should be noted sentences like the following. The feel of velvet is a satisfying sensation. The smell of stale cheese is a revolting sensation. The touch of decaying flesh is a nauseating sensation.

Although there may be differences between these two grammatical frames; one of which uses the gerund, the other of which uses 'the feel', 'the smell', and 'the touch', they may both for present purposes be considered as variations of a common infinitive frame.

Here there is not, as in the case of 'experience' considered above, an event for which the term in question is a 'stand in'. The role of 'sensation' here is rather that of an infinitive substitute, allowing us a noun where otherwise we would modify the infinitive. Thus 'sitting on a water bed for the first time is a thrilling sensation' in that to sit on a water bed for the first time is thrilling. 'To discover blood on one's forehead is a terrifying sensation' in that to discover blood on one's forehead is terrifying. 'The smell of stale cheese is a revolting sensation' in that to smell stale cheese is revolting. 'The feel of velvet is a satisfying sensation' in that to feel velvet is satisfying.

2. 'Sensation', however, appears in another grammatical function; it serves as the nounal form of 'seeming'. The following sentences are here in point: While walking down the street, A suddenly had a sensation of being followed. Under hallucinatory drugs, B had a sensation of ants crawling up his backbone. Since the operation, doctor, I often have a sensation of warmth - for no particular reason - in my right hand.

In each of these cases the role of 'sensation' is that of the nounal form of seeming. In the first case, it seems to A that (or as if) he is being followed. In the second case, it seems to B under the effects of a hallucinatory drug that ants are crawling up his spine. In the third case, it seems to the patient as if his right hand is warm.

D. At this point a number of at least temporary conclusions may be drawn.

1. Farrell presents a number of problem cases with regard to 'experience' and 'sensation'. He presents the problem of "I wonder what it is like to be an opium smoker" and notes: "The only sort

of answer that will satisfy me is the sort of answer I will get if I become an opium smoker ... myself. That is to say, I am imagining myself in the role of observer-subject, i.e., the role of the privileged observer, and I will be satisfied only with the sort of answer I can then obtain."

To wonder what it is like to be an opium smoker is often taken as a wonder concerning the type of 'sensations' to which opium smokers have privileged access. On the lines of the analysis presented, what is in doubt is the proper adjective for the grammatical frame 'Smoking opium is a _____ sensation'; and that is a simple wonder as to what it is like to smoke opium.

Farrell's other examples fall similarly in line with the account presented:

"Now what about robots? Is there any point in keeping the distinction between 'experience' and 'behavior' in order to distinguish between robots and ourselves? It looks like it because we are inclined to say: 'If a robot were to behave just like a person, it would still not have any sensations, or feelings.' And this seems to entail saying that we have experience (in the raw feel sense), and that the robot does not have it."

We cannot imagine sitting on a water bed to be a pleasurable sensation for a robot simply because we cannot imagine sitting on a water bed to be pleasant for a robot. We cannot imagine a car accident to be a terrifying experience for a robot simply because we cannot imagine a car accident to be terrifying to a robot. We cannot imagine a first kiss to be an exciting sensation for an automaton simply because we cannot imagine a kiss to be exciting to a machine. We cannot imagine robots having 'sensations', not because a robot-producing technology is long on gears and levers

and short on mental events, but because we cannot imagine a robot being excited, terrified, or pleased.

2. 'Descriptions of experience' are commonly taken to be analogous to descriptions of the contents of logically locked cupboards. On the account proposed, however, a 'description of experience' becomes a much more mundane endeavor. To describe an experience is to describe an event; to fill in the adjectival blank of 'the Fourth of July celebration was a ____ experience', which is much the same as filling in the adjectival blank of 'the Fourth of July celebration was ____.' To describe a sensation is similarly to describe either what it 'seemed that', 'seemed to be', 'seemed as if', or the like, or to tell what it is like to ... (smoke opium, feel velvet, sit on a water bed). Each of these relates to public events and human reactions. None relates to a netherworld of 'sensations' logically locked away.

III. More Magical Midgets

A. I shall be concerned in this section with the following cases. The first is Farrell's, the others are logical extensions of it.

1. 'If we merely consider all the differential responses and readinesses, and such like, that X exhibits towards the stimulus of a red shape, we are leaving out the experience he has when he looks at it.'

2. 'Perhaps P reacts to sensation a in the same way that Q reacts to sensation b.'

3. 'Perhaps the neural structure of R associated with sensation c is the same as that of S associated with sensation d.'

4. 'Perhaps T reacts to sensation e in the same way as U reacts to sensation f and the neural structure associated with sensation e in T is the same as that associated with sensation f in U.'

5. 'If V cannot distinguish between stimulus G and stimulus H, how do we know whether this is because both produce sensation g or sensation h?'

6. 'If W cannot distinguish between stimulus I and stimulus J, how do we know whether this is because the neural structure of each is associated with sensation i or sensation j?'

Cases (1) through (6) appear to present genuinely undecidable cases for the psychologist and physiologist and are, of course, very similar to the type of questions presented in chapter eleven. If a similar treatment is possible here, the account previously suggested can be seen as a specific case of the more general matter of 'experience'.

B. The problems sketched above conjure up a picture of 'raw feels', 'experiences', and 'sensations' as something like little events in our heads. Such a notion of private, incorrigible, and incommunicable events, however, quickly traps us in familiar muddles.

1. We imagine V in case (5), for example, to be an exclusive audience of one to an interior presentation. We further imagine him to have a sensational sketch-pad, on which he represents his sensations of the world. And we imagine the alternatives portrayed on his sketch-pad to be something like this:



Which of the two possibilities applies? Does V sketch, in such private places, all circles as triangles or all triangles as circles? And we wait anxiously for the eventual exhibit of sensational sketch-pads.

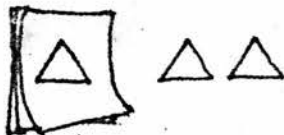
Such an exhibit, however, would be a very odd one indeed. The 'first possibility V' and the 'second possibility V', both

unable to distinguish circles from triangles, would embrace each other as brothers; their sketch-pads would seem identical to them. They might even go so far as to compare their sketch-pads with the norm and declare that, since all sketch-pads are alike, they had been mistakenly condemned all along.

It might be claimed, however, that at least we could tell. But how could we determine, if the two individuals could not distinguish their sketch-pads, whether they correctly represented what they experienced?

The alternative is to suppose little normal individuals inside the abnormal ones; or, what comes to the same thing, to imagine not only private but truly magical sketch-pads. We could thus imagine that the normal-experiential midgets inside 'possibility one V' and 'possibility two V' were perfectly capable of drawing both circles and triangles, but either never had the occasion to draw circles or never had the occasion to draw triangles.

Here, however, we would get an infinite regression. We would only know that 'first possibility V' sees the circles on his sketch-pad, triangular things, and circular things as alike. But then might not his 'mind's eye' be to blame, for further up we might find a second-order midget representing all three in the following manner:



Either of the pictures we invoke of the alternatives in such a case involve perplexing complications. To imagine sensational sketch-pads is not enough, and to imagine truly magical sketch-pads forces us into an infinite regression of higher-order midgets.

C. It is also the case that the attempt to specify the variant 'sensations' at issue leads to inconsistency. We may ask:

'Is it not possible that g-sensations (sensations associated with G's) are h (adjectival form of H) to V?'

To say that g-sensations are h to V is equivalent to saying that G's are sensationally to V as H's are sensationally to V. But if we assume that V can adequately distinguish G's from H's (an assumption apparently encouraged by the query), then it follows that G's are sensationally unlike H's to V. The contradiction thus appears that G's and H's are both sensationally alike and sensationally different.

The same holds true of the other examples above. Allowing E and F as, respectively, 'e' and 'f' objects in case (4), we arrive at the contradiction that E's and F's are both sensationally alike and sensationally different to both T and U.

D. The alternatives which the cases in question appear to present, and the images conjured up by both those questions and a notion of 'substantial sensations', quickly saddle us with difficulties. The alternative analysis of 'sensation' and 'experience' presented in the first part of the chapter does not. But in light of such an analysis our problems are shown to be vacuous and our alternatives to be illusory.

Taking 'sensation' as the nounal form of 'seeming', our questions in (2), (3) and (4) may adopt the simple form of 'seeming as if'. Our alternatives are empty; for all B's to seem as if they were A's is totally equivalent, and not an alternative, to all A's seeming as if they were B's.

Taking 'sensation' as either the nounal form of 'seeming' or as an infinitive 'filler', both alternatives in (5) and (6) are shown to be specious. To one incapable of distinguishing X's from Y's, there is not only no difference between 'seeming as if it

were X' and 'seeming as if it were Y', but it is doubtful whether the locution applies at all.

E. It may at least be suggested, then, that the apparent alternatives of our queries and the images they conjure up are the result of a simple grammatical confusion. 'Sensations' may raise the problems encountered simply because their grammatical function is quite different from what it might appear.

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